

The Relations of Chinese Mothers' Endorsement of Chinese Cultural Values and
Parenting Beliefs to Their Parenting Styles and Practices

BY

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ABSTRACT

Studies suggested the possible influence of cultural values and parenting beliefs on parenting styles and practices (Bornstein, 1991; Chao, 1994, 2000; Cheah & Rubin, 2003; Chen & French, 2008; Harwood, 1992; Ogbu, 1981; Rudy & Grusec, 2006; Triandis, 1988, 1995), however limited empirical studies have explored how mainland Chinese mothers' cultural values and parenting beliefs might have an impact on their parenting styles and practices. The possible associations between mothers' endorsement of Chinese cultural values and parenting beliefs and their parenting styles and parenting practices were examined using structural equation modeling (SEM) in the current study. The findings suggest that Chinese mothers' endorsement of collectivism was significantly positively associated with their authoritarian and authoritative parenting styles and behavioral control, but negatively associated with mothers' use of psychological control. Chinese mothers' "training" beliefs were significantly negatively associated with mothers' use of behavioral control. Additionally, the current study explored the possible impact of youths' age on their mothers' choice of parenting styles and parenting practices and found that generally speaking, the older the youth, the less authoritarian and authoritative parenting style and behavioral control they perceived. It seems that under the new economic, cultural, and social context, Chinese mothers who strongly endorsed Chinese cultural values (i.e., collectivism), may have to adjust their traditional parenting strategies and adopt both authoritarian and authoritative parenting practices to promote appropriate behavioral and social skills in their children, while taking children's age into consideration. Implications and limitations of the study were also discussed.

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INTRODUCTION

Many studies have demonstrated that parenting styles and practices have significant influence on adolescents' developmental outcomes (Baumrind, 1991; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Mantzicopoulos & Oh-Hwang, 1998; Querido, Warner, & Eyberg, 2002; Radziszewska, Richardson, Dent, & Flay, 1996; Silva, Dorso, Azhar, & Renk, 2007; Steinberg, Elmen, & Mounts, 1989; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994; Steinberg, Lamborn, Dornbusch, & Darling, 1992; Steinberg & Silk, 2002; Thompson, Hollis, & Richards, 2003; Wolfradt, Hempel, & Miles, 2003). Scholars have explored the factors that may influence parents' choice of their parenting styles and practices. Some of them have suggested a possible influence of cultural values and parenting beliefs on parenting styles and practices (Bornstein, 1991; Chao, 1994, 2000; Cheah & Rubin, 2003; Chen & French, 2008; Harwood, 1992; Keller, et al., 2006; Kim, Wang, Orozco-Lapray, Shen, & Murtuza, 2013; Ogbu, 1981; Rudy & Grusec, 2006; Sorkhabi, 2005; Super & Harkness, 2002; Triandis, 1988, 1995). For example, Ogbu (1981) argued that parental practices and beliefs have been influenced by the cultural environment in which the family resides. Previous studies have examined how culturally guided parental socialization goals and parenting beliefs influence parenting practices and, in turn, children's socialization outcomes (Cheah & Rubin, 2003; Keller, et al., 2006; Tamis-LeMonda et al., 2008).

In Chinese culture, the interests of the individual are considered as subordinate to those of the group, therefore, pursuing individual needs and autonomy is considered selfish and anti-collective and is discouraged (Cen, Gu, & Li, 1999); children are encouraged to develop

behaviors that promote the harmony and welfare of the collective (Chen, Wu, Chen, Wang, & Cen, 2001). However, very few studies have directly explored the possible association between Chinese mothers' adherence to Chinese cultural values and their choices of parenting style and practice. Some studies found a relation between endorsement of Chinese cultural values and both authoritative and authoritarian parenting styles (Xu, Farver, Zhang, Zeng, Yu, & Cai, 2005), others showed no direct influence of Chinese traditional culture and beliefs (e.g., Confucian ideologies) on parenting practices (Chang, Schwartz, Dodge, & McBride-Chang, 2003). It is important to explore if there is a direct association between Chinese mothers' adherence to Chinese cultural values and their choices of parenting styles and practices. The current study examines whether collectivism (a central Chinese cultural value) and beliefs about "training" (a culturally relevant parenting philosophy) predict four aspects of parenting: authoritative parenting style, authoritarian parenting style, psychological control, and behavioral control.

LITERATURE REVIEW

Parenting Styles

Parenting behavior encompasses various characteristics, such as maturity demands, communication styles, nurturance, warmth, and involvement (Darling & Steinberg, 1993), and research on it has been heavily influenced by Baumrind's (1971) conceptualization of the authoritarian, permissive, and authoritative parenting styles. Baumrind's parenting styles are based on the intersection of two orthogonal factors—responsiveness and demandingness. Responsiveness refers to parental attention to children's needs by encouraging individuality, self-regulation, and self-assertion (Baumrind, 1991). Demandingness refers to parents' readiness to

face a disobedient child and to require mature behavior and participation in household chores (Baumrind et al., 2010).

Authoritative Parenting Style

The authoritative parent scores high on both responsiveness and demandingness, retains “firm control at points of divergence, but recognizes the child’s interests and special ways” (Baumrind, 1966, p. 891). Baumrind (1967, 1971) suggested that for authoritative parents, rules are established, but they are subject to discussion and revision based on the child’s views and opinions and the situation. Meanwhile, authoritative parents encourage autonomy, and they maintain open communication and recognize children’s and adolescents’ rights. Generally, authoritative parents are more democratic and less concerned with strict adherence to the rules than with explaining the rules and helping their child understand the reasons behind them.

Outcomes of authoritative parenting style. Generally speaking, children raised in authoritative homes show fewer signs of anxiety and perform better in school than do their peers (Dornbusch et al., 1987; Muris & Merckelbach, 1998; Spera, 2005; Steinberg et al., 1989; Steinberg et al., 1992, 1994; Wolfradt et al., 2003). Children of authoritative parents were also found to be more independent and have higher social and cognitive competence than other children (Baumrind, 1973; Spera, 2005).

Research on adolescents show similar results. Studies of high school students showed that authoritative parenting is related to greater school success (Steinberg et al., 1989, 1992; Wolfradt et al., 2003). For example, Steinberg and colleagues (1989, 1992) found adolescents who described their parents as treating them warmly, democratically, and firmly were more likely than their peers to develop positive attitudes toward and beliefs about academic achievement. Furthermore, compared to parents with other parenting patterns, authoritative

parents were more successful in facilitating school involvement and academic performance, (Baumrind, 1991; Lamborn et al., 1991; Steinberg, Mounts, Lamborn, & Dornbusch, 1991; Steinberg et al., 1992).

Authoritative parenting is positively related to adolescents' psychological health. For example, adolescents of authoritative parents scored highest (relative to other parenting styles) on measures of psychosocial competence and maturity and lowest on measures of psychological and behavioral dysfunction (Lamborn et al., 1991; Mantzicopoulos & Oh-Hwang, 1998). Compared to adolescents of authoritarian parents, they were less likely to be anxious or depressed and scored higher on measures of self-reliance (Radziszewska et al., 1996; Steinberg et al., 1991).

Baumrind's early research, confirmed by more recent studies, also identified authoritative parenting as a key determinant of children's and adolescents' psychosocial well-being (Lamborn, et al., 1991; Slicker, 1998). For example, Wolfradt and colleagues (2003) indicated that adolescents with authoritative parents showed the highest scores on active problem solving. In addition, authoritative parents were more successful in protecting their adolescents from drug use and delinquent activities, compared to parents with other parenting patterns (Baumrind, 1991; Lamborn et al., 1991; Steinberg et al., 1991, 1992).

Authoritarian Parenting Style

Baumrind (1967, 1971) suggested that authoritarian parenting is characterized by high demandingness and very little responsiveness. According to Baumrind (1966, p. 890), the authoritarian parent "values obedience and restricts autonomy." This parenting style has the following characteristics: 1) parents attempt to shape, control and evaluate the behavior and attitudes of their children in accordance with an absolute set of rules; 2) parents emphasize

obedience, respect for authority, tradition, and the preservation of order; 3) verbal give-and-take between parents and children is not encouraged (Dornbusch et al., 1987). Authoritarian parents also are expected to be emotionally detached from their children (Park, Kim, Chiang, & Ju, 2010). Most of the time, compared to authoritative parents, authoritarian parents solve disciplinary problem by coercion, physical punishment, and verbal reprimands, and they are less likely to explain the reasons for their demands or punishment to their children (Robinson et al., 1995).

Outcomes of authoritarian parenting style. In contrast with authoritative parenting style, authoritarian parenting has frequently been associated with more negative outcomes in children and adolescents. For example, studies showed that authoritarian parenting was associated with negative academic outcomes in children and adolescents. Dornbusch and colleagues (1987) conducted a research study with a large and diverse American sample, and found that authoritarian parenting style was negatively associated with students' grades. A study examined the relationships among childhood experience of parenting styles and academic success in college students suggested that mothers' higher authoritarian parenting predicted lower grade point averages for both high school and college (Silva et al., 2007).

Authoritarian parenting style was also associated with negative behavioral outcomes in children and adolescents. Baumrind (1971) described children of authoritarian parents as less content, less affiliated with peers, and more insecure, apprehensive, and hostile. Baumrind and Black's (1967) study of preschool children demonstrated that authoritarian parenting is associated with low levels of independence and social responsibility. Young children who have experienced authoritarian parenting tend to be less popular and behave less helpfully towards their peers (Dekovic & Janssens, 1992). The results of a longitudinal study suggested that there

was a linear association between authoritarian parental attitudes expressed when children were 5 years old and subsequent conduct problems at age 10 (Thompson et al., 2003). Authoritarian parenting was also related to children's negative coping strategies and aggressive behavior (Fabes, Leonard, Kupanoff, & Martin, 2001; Jones, Eisenberg, Fabes, & MacKinnon, 2002; Stansbury & Zimmermann, 1999), and teacher reports of poor child adjustment at school (Shumow, Vandell, & Posner, 1998).

In addition, authoritarian parenting style was associated with poor socioemotional outcomes for children and adolescents. Jones, Rickel, and Smith (1980) reported a correlation between high parental restrictiveness, which is one characteristic of authoritarian parenting style, and the use of less effective social problem-solving strategies in preschoolers. Wolfradt and colleagues (2003) suggested that high school students of authoritarian parents showed high levels of anxiety and depersonalization (Depersonalization is an anomaly of self-awareness. It consists of a feeling of watching oneself act, while having no control over a situation. Subjects feel they have changed, and the world has become vague, dreamlike, less real, or lacking in significance (American Psychiatric Association, 2004)). Silva et al. (2007) found that mothers' authoritarian parenting was related to increases in college students' anxiety.

Permissive Parenting Style

Baumrind (1967) described permissive parents as being more responsive than they are demanding. Permissive parents are tolerant and accepting toward children's and adolescents' impulses, applying as little punishment as possible. They make few demands for mature behavior, and allow considerable self-regulation by the child (Baumrind, 1967, 1971; Dornbusch et al., 1987). Furthermore, permissive parenting might include lax or inconsistent discipline, a

general ignorance of child misbehavior, and lack of self- confidence about parenting (Robinson et al., 1995).

Outcomes of permissive parenting style. Generally, permissive parenting style has negative impacts on child and adolescent developmental outcomes. Baumrind found that children of permissive parents were immature and lacked impulse control, self-reliance, social responsibility, and independence (Baumrind, 1967). At ages 8-9, children of permissive parents were low in both social and cognitive competence (Baumrind, 1973). Dornbusch and colleagues (1987) found that compared to authoritative parenting, permissive parenting styles were negatively associated with adolescents' academic performance among a diverse sample of high school students.

In addition, studies showed that permissive parenting style had negative impacts on children and adolescents' behavioral problems. For example, permissive parenting was reported to be positively associated with internalizing and externalizing problems, including internalized distress, conduct disorder, and delinquent behavior in children and adolescents (e.g., Querido et al., 2002; Thompson et al., 2003). Williams et al. (2009) conducted a longitudinal study on 113 children's internalizing and externalizing problems, and they found that internalizing problems at age 4 were greatest among behaviorally inhibited children who also were exposed to permissive parenting. In a study of adolescents, Steinberg and colleagues (1994) found that adolescent-reported permissive parenting was associated with more externalizing problems across a two-year period of high school.

Cultural Differences in Parenting Style

Individuals from different cultural backgrounds (i.e., individualistic or collectivistic cultural background) tend to have different parenting styles and apply different parenting

methods. Many studies of the impact of culture on parenting style focus on the roles of individualism and collectivism. In psychology, individualism is defined by the central assumptions that human beings are ideally free and of equal status, and it has typically been defined in terms of independence (Greenfield, 1994; Markus & Kitayama, 1991). Collectivism, on the other hand, has been defined in terms of interdependence and the central assumption is that human beings are primarily members of groups (Triandis, 1989). Research showed that collectivist mothers tend to endorse authoritarian parenting more than individualist mothers do (Rudy & Grusec, 2006). Numerous studies have found that cultures that emphasize interdependence (e.g., Indian, Chinese, and Turkish) usually use higher levels of control over children than do those that emphasize independence (e.g., American and Canadian; Chao, 1994; Dornbusch et al., 1987; Harwood, Miller, & Irrizary, 1995; Park et al., 2010; Sinha, 1981).

Some scholars have argued that in individualist contexts, autonomy, self-reliance, and self-interest are often the focuses of socialization, so authoritative parenting, with its emphasis on negotiation and responsiveness to children's ideas and suggestions, may be appropriate (Rudy & Grusec, 2006). However, in collectivistic contexts, socialization goals often focus on producing children who are self-disciplined, hardworking, and obedient (Chao, 2000). Since authoritarian parenting style places emphasis on strictness and conformity to parental expectations and rules, compared to other parenting styles, it may be more conducive and beneficial to these socialization goals (Park et al, 2010). Additionally, Grusec, Rudy, and Martini (1997) argued that in collectivist cultures, individuals must learn to inhibit the expression of their own needs and to attend to the needs of others in the in-group, an outcome achieved through the use of more authoritarian parenting practices.

Cultural Differences in Outcomes of Parenting Style

Baumrind's work suggested that authoritative parenting has beneficial effects in promoting adolescents' psychological health and academic achievement (Baumrind, 1971). However, some scholars argued that the beneficial aspects of authoritative parenting style may be culture-bound and apply mainly to European Americans from middle-class families (Darling & Steinberg, 1993). An examination of the 1990 and 1992 National Educational Longitudinal Study showed that the associations between higher academic achievement and higher authoritative and lower authoritarian styles were only found for European American samples (Park & Bauer, 2002). Authoritative parenting was found to be more common among European American parents, whereas African Americans, Asian American, and Hispanic American parents were more authoritarian (Dornbusch et al., 1987; Steinberg et al., 1991). However, there is only limited empirical research on parenting styles using Asian or non-Caucasian samples (Ang & Goh, 2006).

Authoritarian parenting has been associated with a wide range of negative outcomes for middle-class children and adolescents of European background (Steinberg & Silk, 2002), the data are less compelling on studies with samples from other cultural backgrounds (Chao & Tseng, 2002). Steinberg and colleagues (1994) conducted a series of studies on four sets of outcomes—psychosocial development, school achievement, internalized distress, and problem behavior—of parenting styles for 14-18-year-olds, and they found that authoritarian parenting has a greater negative effect on American children of European heritage than on Asian American youth in terms of grade point average and academic self-conceptions. Moreover, parenting style was unrelated to academic competence among African American youth.

Authoritarian parenting could even be associated with some positive psychosocial outcomes. In an exploratory study with 16 African American children and their families,

Baumrind (1972) found through observation and structured interviews that authoritarian child-rearing practices appeared to affect African American and European American girls quite differently. More specifically, African American daughters of authoritarian parents, when compared with European American girls, were significantly more independent and self-assertive.

Several scholars have argued that parental authoritarianism in Chinese culture might have a different meaning for parents and children than seen in Western cultures (Darling & Steinberg, 1993; Ekblad, 1986; Steinberg et al., 1992; Wu, 1981). In collectivist or interdependent cultures, the cognitive and emotional correlates of authoritarian parenting often differ from what is found in more individualist cultures. Asians and Caucasians may have different understanding and meaning of scoring high on authoritarianism due to their different cultural systems. For Caucasians, “strictness” may associate with negative characteristics such as parental hostility, aggression, and dominance, whereas for Asians, “strictness” may mean that parents care about their children, and they like to get involved in children’s lives (Chao, 1994; Lau & Cheung, 1987). Similarly, for Caucasians, “control” may be associated with negative characteristics such as parental hostility and dominance, however for Asians, “control” has very positive connotations and it is regarded as a role requirement of responsible parents and teachers (Ang & Goh, 2006; Chao, 1994). It is even considered as part of “good parenting” to some extent, when exerted deliberately and calmly (Grusec et al., 1997).

In addition, according to parental acceptance / rejection theory (Rohner, 1986; Rohner et al., 2005), children’s perceptions of the intentions behind parents’ action will influence their reactions to those actions, which may further influence children’s outcomes. For example, if children interpret parents’ action as driven by love or support, they are likely to have positive views of the action, however, if children interpret parents’ same action as driven by aggression

or dominance, they are likely to have negative reactions to the action. Previous studies suggested that adolescents who perceived their parents' parenting style as authoritarian may not be one homogeneous group, some studies have documented positive personal and academic-related adjustment outcomes for these adolescents, whereas others have reported negative outcomes (Chen et al., 1997; Gonzalez et al., 2001; Herz & Gullone, 1999; McBride-Chang & Chang, 1998). In a study of adolescents in Singapore, Ang and Goh (2006) found two distinct clusters of youth with authoritarian parents. One was the maladjusted adolescents, who have low self-esteem, poor self-reliance, poor interpersonal relations, and a high sense of inadequacy; the other one was the well-adjusted adolescents, who have high self-esteem, high self-reliance, good interpersonal relations and a low sense of inadequacy. It is possible that the two groups of adolescents interpreted their parents' parenting practices differently.

In summary, higher levels of authoritarianism found in cultural groups that emphasize collectivism and interdependence do not necessarily indicate a low level of parental concern and love for children and adolescents, nor are they as detrimental as similarly high levels of authoritarian parenting in parents from European cultural groups (Chao, 1994; Rudy & Grusec, 2006).

Parental Control

Baumrind's parenting typology originated with her research on parental control (Baumrind, 1971). Both authoritative and authoritarian parenting styles are characterized by the use of control, but the type of control (power) differs. For example, authoritative parents use confrontive power, which allows negotiation and reasoning, while authoritarian parents use coercive power, which helps to maintain the hierarchical structure of the parent-child relationship (Baumrind, 2012). Parental control has multiple aspects, including psychological

control (i.e., using guilt and withdrawal of affection to manage children's behavior) and behavioral control (i.e., parental rule-setting and monitoring of children's actions and whereabouts) (Barber, Olsen, & Shagle, 1994).

Psychological control. First noted by Schaefer (1959, 1965), psychological control is indirect, covert, and intrusive, and it aimed at manipulating the child's psychological world and personal identity. Psychological control refers to parental attempts to control children's activities in ways that negatively affect the children's psychological world, and therefore undermines the children's psychological development (Smetana & Daddis, 2002). Characteristics of parents' psychological control include invalidating feelings, constraining verbal expressions, personally attacking, withdrawing love, and inducing guilt.

Research indicates no beneficial effects of psychological control (Barber, 1996, 2002a, 2002b; Barber et al., 1994; Barber, Stolz, & Olsen, 2005; Steinberg, 1990; Steinberg et al., 1989), whether operationalized by the child's perception of being controlled (Steinberg, 2005) or the personal domain over which control is attempted (Hasebe, Nucci, & Nucci, 2004; Nucci, 1996; Smetana, 2005). Psychological control also was found to disrupt children's individuation process and sense of self-efficacy, and to be associated with internalizing problems (Barber et al., 2005; Goldstein, Davis-Kean, & Eccles, 2005; Stubbe, Zahner, Goldstein, & Leckman, 1993) and poorer academic performance (Aunola & Nurmi, 2004).

The negative effects of psychological control appear to be consistent across cultural contexts. Wang, Pomerantz, and Chen (2007) found that parents' psychological control was associated with poorer emotional functioning in both U.S. and Chinese samples. Barber and colleagues (2005) reported positive associations between parental psychological control and adolescents' depression and delinquency in a variety of countries including China and India. It

also was found to be related to adjustment difficulties among Chinese children and adolescents, for example depression and antisocial behaviors (Bradford et al., 2004; Nelson, Hart, Yang, Olson, & Jin, 2006), disruption of parent-child relationships (Bradford et al., 2004; Shek, 2006; Wang et al., 2007), and physical and relational aggression (Nelson, et al., 2006).

Behavioral control. In contrast to the covert nature of psychological control, behavioral control is direct, overt, and confrontive, and aimed at inducing compliance with parental directives (Schaefer, 1959, 1965). Behavioral control has been commonly conceptualized in terms of parental monitoring and surveillance (e.g., Dishion & McMahon, 1998; Pettit, Laird, Dodge, Bates, & Criss, 2001), and researchers often have measured behavioral control in terms of parental knowledge of children's activities (Crouter & Head, 2002; Kerr & Stattin, 2000).

Studies on parental psychological control showed consistent negative effects, whereas studies on behavioral control showed less negative and more positive outcomes. For example, behavioral control of undesirable actions has been found to improve the psychosocial adjustment of conduct-disordered children (Eyberg, Nelson, & Boggs, 2008; Patterson, 1982) and reduce the antisocial behavior of children without conduct disorder (Barber, 1996; Barber et al., 2005). Parental behavioral control (e.g. setting limits, showing consistency in discipline, and demanding maturity) predicts adaptive child development and low levels of externalizing problem behavior (Barber, 1996; Hart, Newell, & Olsen, 2003). In addition, Wang and colleagues (2007) found that in both the U.S. and Chinese samples, parents' behavioral control was associated with better academic performance.

Outcomes Associated with Parental Control

Research findings are conflicting on the extent to which the impact of parental control is similar or different in East Asian countries and in Western countries (Dornbusch et al., 1987;

Iyengar & Lepper, 1999; Knight, Virdin, & Roosa, 1994; Pomerantz & Wang, 2009). Some studies showed similarities, for example, in both U.S. and Chinese contexts, children are likely to resist parental control of decisions that are viewed as within the domain of personal choice (Chen-Bouck & Patterson, 2015; Smetana, Wong, Ball, & Yau, 2014; Yau & Smetana, 2003). The personal domain refers to regions of children's conduct that may be considered personal, such as what clothes to wear, and thus beyond the legitimate authority of parents (Nucci, 1981). Hasebe, Nucci, and Nucci (2004) conducted a study with Japanese adolescents and found that parents making decisions for adolescents about personal issues was associated with dampened emotional functioning. Both U.S. and Chinese children express particularly negative responses to parental control of choices that are perceived as vital to a child's identity (Chen-Bouck & Patterson, 2015; Smetana et al., 2014). Qin and colleagues (2009) found that decreases in parental control as children moved into adolescence were associated with greater emotional well-being for youth in both the U.S. and China.

However, other studies showed some differences. For example, Asian American children react more positively to parental control than do their European American counterparts. If Chinese children feel that they have positive relationships with their mothers, when their mothers have made decisions for them about an academic task, they spend more time and perform better on the task than they do when they make the decisions themselves (Bao & Lam, 2008). Iyengar and Lepper (1999) found the same tendency among Asian American children; when children believe that their mothers have made decisions for them about an academic task, they persist longer and perform better on the task than they do when they make the decisions themselves. Some studies suggested that Chinese children have been found to be more inclined than U.S. children to comply with parental control in personal domains (Chao & Tseng, 2002; Yau,

Smetana, & Metzger, 2009). It is possible that there are cultural variations in both the scope and content of the personal domain (Nucci, 1996; Smetana & Daddis, 2002).

Compared with Caucasian parents, non-Caucasian parents tend to show elevated levels of parental control but do not necessarily have children who show elevated levels of problematic outcomes regarding attachment status, school achievement, self-worth, or conduct disorder (Carlson & Harwood, 2003; Dornbusch et al., 1987; Knight et al., 1994). Blair and Qian (1998) found parental control to be positively associated with school performance of Chinese adolescents.

Based on parental acceptance / rejection theory (Rohner, 1986; Rohner et al., 2005), children's interpretations of the intentions behind parents' actions will affect their reactions to those actions. Research indicated that parental control might have different meanings in Asian and Western cultural settings. For Westerners, "control" may be associated with negative characteristics such as parental hostility and dominance, however, "control" not only has very positive connotations for Asians, but also is it regarded as a role requirement of responsible parents and teachers (Ang & Goh, 2006; Chao, 1994). Chao (1994) argued that because East Asian notions about parents' role in children's development involve parental control with the ultimate goal of supporting children, parental control in these cultural groups may not be experienced as rejecting by children. It may even be considered as part of "good parenting" under certain conditions (Grusec et al., 1997).

Moreover, children tend to interpret the meaning of parental control on the basis of what is normative in their specific cultural setting. Kağıçbaşı (1996) suggested that in interdependent cultures, children consider strong parental control as normal and not necessarily as reflecting parental rejection. Kağıçbaşı's (1970) study of Turkish parents showed that they were more

controlling than were parents from the United States, but there were no differences between the groups in terms of parental affection. Consistent with these findings, Trommsdorf (1985) found that Japanese undergraduates reported their mothers to be more controlling than did their German counterparts, however they reported higher levels of maternal acceptance, and they even felt rejected when their parents provided little control and encouraged autonomy. Similarly, perceptions of parental control and parental warmth were found to be related for Korean adolescents, for perceptions of both mothers and fathers (Rohner & Pettengill, 1985).

Influence of Culture and Cultural Values on Parenting Ideologies

Ecological theorists propose that developmental processes must be considered within a cultural and historical context (Bennett, 1976; Bronfenbrenner, 1992; Ogbu, 1981). Culture and cultural values may influence parents' parenting ideologies (e.g., beliefs, values, and attitudes). For example, parents' cultural values may shape their views on whether particular children's characteristics are desirable or not, which will further influence their parenting behaviors and socialization practices. In many cultures, parents prefer an "easy" baby who is calm, attentive, and easy to care for. However, a study of Brazilian parents who live in the harsh environment of the slums found a preference for "fighters", and to their understanding the worst temperament in a baby is one that is calm and lifeless (Scheper-Hughes, 1987). Scholars also argued that parents' beliefs about the ideal and appropriate ways for children to behave are shaped by cultural values and norms (Bronfenbrenner, 1992; Chen & French, 2008; Super & Harkness, 2002). Typically, North American mothers promote individualistic and independent behavior in their children by using reasoned control, openly expressing their warmth and intimacy, and frequently praising their children (Wilcox, 1998). However, in order to foster interdependent behavior in their children, Chinese parents stress obedience to rules and adult authority, and express their warmth

in a more subtle or implicit fashion by being supportive and sensitive to their children's needs (Chao, 1994; Ho, 1986; Wu, 1985).

In most Asian cultural settings, independence and autonomy are not considered virtues in a child, instead, parents may think a respectful, obedient, self-disciplined, emotionally restrained, interdependent, and hardworking child is a good child (Cole, Bornstein, & Lamb, 1992; Stevenson, Chen, Lee, Roopnarine, & Carter, 1992). Studies showed that Japanese parents value cooperation, engagement and harmony with others in their children, and to these parents, giving in is not a sign of weakness, it reflects tolerance, self-control, flexibility, and maturity instead (Kumagai, 1981; White & LeVine, 1986). Generally speaking, in Western cultural settings, parents may want their children to be independent, self-assertive, expressive, autonomous, and stand out, with the ability to change situations that are not beneficial to them (Markus & Kitayama, 1991; Weisz, Rothbaum, & Blackburn, 1984).

However, one thing needs to be noted here is that in any cultural setting, Asian or Western, there could be variability of parenting ideologies within that cultural setting as well. Annette Lareau talked about the variability among families from different socioeconomic status, for example, the middle-class U.S. families in her research expected their children to have their own opinions, talents, and skills, but working-class or poor families focused more on having children follow directives and not questioning or challenging adults (Lareau, 2003). Thus, it is important to examine the variability in endorsement of relevant cultural values within cultures, as well as making cross-cultural comparisons.

Influence of Cultures and Cultural Values on Parenting Practices

Culture has been shown to influence many domains of family life, including the ways in which parents socialize their children (Ogbu, 1981). Ogbu (1981) argued that socialization

practices of families should be considered in diverse cultural environments. He suggested that parental socialization goals might vary due to different societal and cultural demands faced by families, more specifically, he argued that parental practices and beliefs have been influenced by the cultural environment in which the family resides. For example, in Chinese and some other collectivistic cultures, the interests of the individual are considered as subordinate to those of the group (Chen et al., 2001). Pursuing individual needs and autonomy is considered selfish and anti-collective and, consequently, discouraged (Cen et al., 1999). Therefore, the goal of socialization is to help children develop behaviors that promote the harmony and welfare of the collective (Chen et al., 2001). Previous studies have examined how culturally guided parental socialization goals and beliefs influence parenting practices and, in turn, children's socialization outcomes (Cheah & Rubin, 2003; Keller et al., 2006; Tamis-LeMonda et al., 2008).

Research has shown that child-rearing practices reflect prevailing cultural values, socialization goals, and beliefs (Bornstein, 1991; Chao, 2000; Harwood, 1992). Contextual development models propose that parents endorsing culturally prescribed values adjust their parenting practices in order to promote culturally desirable behavior in their children (Chen & French, 2008; Super & Harkness, 2002). Parents with different cultural backgrounds choose their parenting practices and child rearing techniques based on what they believe will promote their children's competencies so that their children can thrive in their societies (Benetti, 1999).

Children and adolescents should develop the cognitive, social, and behavioral skills they need to thrive within a particular cultural environment, so parental child-rearing practices are dictated accordingly (Ogbu, 1981). For example, Lebra (1976) claimed that Japanese mothers teach their children to fear the pain of loneliness, whereas Westerners teach children how to be alone. Similarly, in a study of sleeping arrangements for infants in U.S. and Mayan families,

Mayan parents emphasized the value of closeness with infants, whereas American parents explained their practices in terms of the value of independence for infants (Morelli, Rogoff, Oppenheim, & Goldsmith, 1992). In a collectivistic society like Japan, mothers value obedience, good manners, and empathy in their children, they usually help their children learn these competencies by telling them directly what others are thinking and feeling in various situations (Clancy, 1986). Similarly, among the Kaluli of New Guinea, mothers speak for their children, teaching them what to say in social situations (Ochs & Schieffelin, 1984).

Parenting practice in collectivist societies tends to place greater emphasis on conformity and obedience than does parenting practice in more individualistic societies (Chao, 1994; Rudy & Grusec, 2006; Triandis, 1988, 1995). Physical control is considered an inappropriate and even detrimental parenting practice among most Westerners, but Puerto Rican mothers believe that in order to teach children to be more attentive, calm, and well behaved, using physical control is necessary (Carlson & Harwood, 2003). In addition, compared with mothers from individualistic contexts, mothers from collectivistic societies applied more psychological control (Rudy & Halgunseth, 2005).

Studies showed that the timing of caregivers' response to babies' signals are different across cultures. Western investigators evaluate caregiver's behavior in terms of how contingent the response is (immediately after) to the child's overt signal. By contrast, studies in other cultural groups emphasize the ways caregivers respond proactively or respond to very subtle and covert signals. Anticipatory responsiveness is reported among the Japanese (Rothbaum, Nagoaka, & Ponte, 2005; Trommsdorff & Friedlmeier, 2003), the Nso of Cameroon (Voelker, Yovsi, & Keller, 1998), and Puerto Ricans and Central American immigrants in the U.S. (Harwood, 1992). Scholars explained that since native-born U.S. caregivers emphasize their

children's autonomy, children's responsibility for clarifying their needs, and the value of children's explicit signals, caregivers rely on reactive responsiveness; other cultures' caregivers, instead, emphasize children's dependence on others, caregivers' responsibility for clarifying children's needs, and the value of caregivers' assumptions about children's needs, so they are more likely to engage in anticipatory responsiveness (Rothbaum et al., 2005).

Many studies supported the idea that parents' cultural background will influence their specific parenting practices. For example, physical proximity as a regulation strategy will be encouraged by parents with interdependent selves. This kind of parent will use different aspects of care, for example, co-sleeping, co-bathing, and prolonged periods of holding, to maximize proximity, which further cultivate interdependence between them and their children.

Cameroonian Nso mothers believe that a baby needs to be bonded to the mother's body (Keller, Zach, & Abels, 2002). Infants in large parts of Africa, Asia, and South America sleep with their mothers, because separation of the infant from the mother is beyond imagination (Morelli et al., 1992; Yovsi, 2001). In Japan and China there is also a much greater incidence of co-sleeping, co-bathing, and physical contact between mother and child than is typically true in most Western countries. The traditional Japanese mother carries the child on her back for a large part of the first 2 years (Markus & Kitayama, 1991).

However, distal forms of closeness such as eye contact are more compatible with people concerned with independence and autonomy, therefore, parents from independent cultural settings will encourage their children to use eye contact as a regulation strategy to show their maturity and autonomy. In a comparison study of two-year-old German and Japanese girls' expression of empathy, researchers found that the Japanese girls were more likely to regulate their distress by seeking physical closeness with their mother, the German girls, in contrast, were

more likely to use eye contact (Trommsdorff, 1985). Similarly, compared to Canadian children, young Chinese children stayed closer to their mothers in novel situations meant to elicit stress (Chen, Hastings, Rubin, Chen, Cen, & Stewart, 1998). In addition, the ability of infants to sleep through the night, in a different place or even a different room from the parents, is held in high regard in the United States (Morelli et al., 1992) and in Germany (Keller et al., 2002).

Furthermore, studies suggested that parents' endorsement of independent or interdependent construal of the self might have impact on their parenting behaviors as well. Markus and Kitayama (1991) argued when people with interdependent construal of self use control, it is directed primarily to the inside and to those inner attributes, such as desires and private emotions, which can disturb harmonious interpersonal relationships. Research showed that Asian American parents do not typically express affection and warmth openly, noting that this finding is also consistent with the value placed on self-control and restraint, especially emotional restraint, emphasized throughout Asia (Wu & Chao, 2005). Instead, they demonstrate their love and affection through their instrumental support and sacrifice, especially with regard to their children's education (Wu & Chao, 2005). For example, Asian American immigrant parents assure the welfare of their children not only by meeting their daily needs, but through the sacrifices of motivated migration (Chao & Tseng, 2002; Fuligni & Yoshikawa, 2002).

Consistent with the independent construal of the self, the Western notion of control primarily implies an assertion of the inner attributes and a consequent attempt to change the outer aspects, such as one's public behaviors and the social situation (Markus & Kitayama, 1991; Weisz et al., 1984). Studies showed that mainstream American culture advocates more direct or expressive communication, and thus parents rely on more demonstrative expressions of parental

love and affection, such as hugging, kissing, and praising children (Russell, Crockett, & Chao, 2010).

The aforementioned studies suggested that parents from different cultural settings tend to have comparatively different child-rearing ideologies and practices. Until now, most studies applied cross-cultural comparison methods to compare parents' childrearing practices and styles between collectivistic and individualistic cultural settings, however, it is still unclear whether cross-cultural findings can be generalized to the within-cultural context.

Chinese Parenting Style

Perceived Chinese parenting style. Previous research described Chinese parents as more controlling or authoritarian and less authoritative than their Western counterparts (Chao, 1994; Chen et al., 1997; Chen et al., 1998; Ho, 1986; Kelley, 1992; Liu & Fu, 1990; Pearson & Rao, 2003). However, different arguments have been made regarding the significance of authoritative and authoritarian styles in Chinese culture and the applicability of Baumrind's system in Chinese cultural contexts. Studies were conducted with Chinese samples to investigate whether the influence of authoritarian parenting on child and adolescent development is culturally common or unique (Chen et al., 1997; Pearson & Rao, 2003). However, no common agreement had been reached, the findings were conflicting.

Some studies supported the applicability of Baumrind's parenting typology in Chinese contexts, arguing that although Chinese parents tend to be authoritarian, due to widespread cultural endorsement of such a style, the pattern of the "within-culture" association between the parenting dimensions and child adjustment may be similar to what is proposed in Baumrind's work (Chen et al., 1997; Hart et al, 1998; Lau & Cheung, 1987). More specifically, given the coercive and prohibitive nature of authoritarian parenting, it is likely to lead to children's

negative emotional and behavioral reactions, whereas, because of the communication, expression of affection, and guidance provide by the authoritative parents, children are likely to have positive social and behavioral reactions to this parenting style (Chen, 2000; Hart et al., 1998). This argument has been supported by empirical findings (e.g., Chen et al., 1997 & Chen et al., 2000). For example, Chen and his colleagues (2000) conducted a study to examine the significance of authoritative and authoritarian parenting styles for Chinese children's development, and they found that maternal authoritative attitudes were associated positively with low power child management strategies (e.g., reasoning) and negatively with high power strategies (e.g., reprimands), whereas, maternal authoritarian attitudes were associated positively with enforcement and negatively with inductive strategies, which further provided evidence for the differential association between authoritative and authoritarian attitudes and low and high power parenting strategies, and indicated internal coherence of authoritative and authoritarian child-rearing patterns, as proposed by Baumrind (1967, 1971), among Chinese parents. Chen et al.'s study provided the evidence that Chinese parents can in fact be characterized along Baumrind's parenting typology. Similarly, studies showed that in Beijing and Shanghai, authoritarianism was related to lower student competence and academic achievement, while authoritativeness was positively related to school success (Chen et al, 1997; Chen, Rubin, Li, & Li, 1999).

On one hand, some of the studies showed that authoritarian parenting style in Chinese settings may have as much deleterious impact on children and adolescents as it has in Western settings. For example, Chen and colleagues (1997) suggested that authoritarian parenting style was negatively associated with school achievement. And they also found authoritarian parenting to be positively associated with aggression, and negatively associated with sociability-

competence and peer acceptance. Pong, Johnston, and Chen (2010) found in their study with Taiwanese adolescents that authoritarian parenting is negatively associated with adolescents' school achievement. Chen, Wang, Chen, and Liu (2002) found that power assertion (i.e., controlling behaviors that dictate or interfere with child activities including direct command, prohibition, intrusiveness, and over-involvement) by parents is related to the aggressive behaviors of two- and four-year-old children.

On the other hand, other studies reported different outcomes, more specifically, authoritarian parenting style could be positively valued in the hierarchical collectivistic Chinese society and thus associated with adaptive outcomes in Chinese children (Chiu, 1987; Ekblad, 1986). For example, Leung, Lau, and Lam (1998) found that authoritarian parenting had positive effects on adolescents' academic performance among the Chinese in Hong Kong, whereas authoritativeness was found to be unrelated to the school performance of these Chinese students.

Research also found other features of Chinese parenting. Hsu (1971) suggested that in Chinese culture, when understanding one's personality, an individual's interpersonal interactions are emphasized above the person's psyche. For example, scholars found an interpersonal orientation in Chinese parenting, which differs qualitatively from mainstream American parenting, where individuality is stressed. And in Chao's study (1995), she found that Chinese mothers emphasized more on their children's interpersonal relationships than on their children's psychological attributes.

In addition, respect for parents and elders, preservation of the honor of the family name, and interpersonal harmony were valued in the Chinese culture, and parents adopted the role of a strict teacher in the socialization process (Shek, 2001). Therefore, another distinctive feature of Chinese parenting is the focus on parental respect, conformity to parental expectations and rules,

and obedience. Comparative studies showed that Chinese parents stressed unquestioned obedience to authority rather than two-way open communication between parents and children (Chao, 1994, 1995; Chiu, 1987; Ho, 1989, 1996; Kriger & Kroes, 1972).

Contemporary Chinese parenting style. By the beginning of the new millennium, Chinese society had begun undergoing rapid social, cultural, economic, and educational changes and developments. For example, economically, China has experienced a transition from a planned economy, which centered on state-sponsored occupations with guaranteed lifetime employment and welfare, to a market economy, which resulted in more merit-based careers in both state-owned and private firms (Yoshikawa, Way, & Chen, 2012) and a job market that is more competitive than before. Socially, Chinese society has moved toward urbanization, which tends to promote individualistic values and independent behaviors (Greenfield, 2009). In addition, Chinese people have increasingly been exposed to Western media, culture, and values, and have become more familiar with Western parenting practices.

Educationally, China started its third education regime in 1978, which emphasized competition, quality, and talents (Chu & Yu, 2010). The modern Chinese educational system is intensive and competitive, and allows approximately one-fourth of senior high school graduates to attend college (Ministry of Education of the People's Republic of China, 2012). Due to these changes, gaining admission to a reputable college has become more stressful and anxiety provoking for both adolescents and their parents.

In this new economic, cultural, and social context, contemporary Chinese parenting ideology and practices are apparently under the influence of both the traditional Chinese values and Western influences, and Chinese parents have been adjusting their traditional methods and strategies accordingly. Many parents constantly negotiate between the conflicting cultural values

of the Chinese heritage culture and global influences (Lau & Fung, 2013). Some traditionally dominant cultural values (e.g., perseverance, an ability to tolerate hardships) became out-of-date for many affluent urban Chinese parents (Chen-Bouck, Duan, & Patterson, 2016; Woronov, 2007). Western parenting practices, such as being encouraging and nurturing toward children's self-esteem and independence, and encouraging children's expression of personal opinions and feelings, became more valued among Chinese parents in Hong Kong and Taiwan (Lieber, Fung, & Leung, 2006). Chinese parents from mainland China started to inculcate children to be independent and creative over the past decade (Fong, 2007; Woronov, 2007).

Chinese parenting ideology and practices are changing rapidly (Lau & Fung, 2013). For example, facing the intense competition on the job market, Chinese mothers from urban areas have become more concerned with their children's ability to be self-sufficient and secure gainful employment in the future than with their academic performance (Way et al., 2013). The analysis of 24 narratives from Chinese mothers of adolescents from mainland Chinese also indicated that their primary goals were to raise socially and emotionally well-adjusted children, and that they attended to children's short-term and long-term happiness (Way et al., 2013). A related study had shown that, between 1998 and 2002, Shanghainese parents' scores on parental emphases, namely parental warmth, power assertion, encouragement of autonomy and independence, and encouragement of achievement, had shifted toward being warm, autonomy supportive, and low in power assertion (Chen & Chen, 2010).

Lieber, Fung, and Leung (2006) identified four key dimensions of Chinese child-rearing beliefs—training, shame, autonomy, and authoritativeness—with samples of parents of preschoolers in Hong Kong and Taiwan. They explained that training was based on Chao's (1994) concept of *guan*, which represented an essential part of parenting that was assumed to be

unique to Chinese culture. Shame, which is also assumed to be a unique and central aspect of Chinese parenting beliefs (Fung, 1999; Fung, Lieber, & Leung, 2003; Ho, 1994), was believed to be typically applied by Chinese parents as an effective socialization tool to teach children lessons about ‘right and wrong’, and to motivate children to constantly engage in self-improvement (Fung, 1999). The autonomy and authoritativeness dimensions seem to involve parental promotion of children’s exploration of the environment, expression of themselves, and self-esteem. In addition, training was found to be positively related to the authoritative and autonomy dimensions.

In addition, the implementation of the one-child policy may have introduced a Western “child-centered” approach into contemporary Mainland Chinese child-rearing, particularly among well-educated populations (Chang et al., 2003). The affective life of the Chinese family has dramatically reconfigured within one generation, for instance, contemporary Chinese parents are more expressive of their love and warmth than previous generations (Chen et al., 2016; Way et al., 2013). Chang and colleagues (see Chang, 2006; Wang & Chang, 2008) conducted unstructured interviews with a sample of parents with children of all ages in Beijing, and they found that Chinese parents, who mostly had only one child, expressed concerns over children’s psychological and emotional well-being, and showed substantial concerns over children’s physical and material well-being as well. Furthermore, Chinese parents reported being controlling, but this control was focused almost exclusively on their children’s academic work.

Taken together, evidence suggested that under the influence of changing economic and social influences in a globalized world, contemporary Chinese parenting ideology and practices are changing rapidly in mainland China, it is possible that Chinese parenting style could be influenced accordingly as well.

Chinese Parenting Beliefs

Culture and cultural values may influence parents' parenting beliefs. Parents' cultural values may shape their views on whether some children's characteristics are desirable or not. Shek and Chan (1999) suggested that traditional Chinese parenting beliefs include the following desired attributes of their children: 1) be obedient, 2) behave in ways that will not bring dishonor to the family name, and 3) have good character and virtues. Chinese parents believe that their children should be encouraged to be obedient, self-disciplined, and hardworking (Chao, 2000).

Studies showed that *guan* ("training") represented an essential part of parenting beliefs that was assumed to be unique to Chinese culture (Chao, 1994; Lieber et al., 2006). According to Chao (1994, 2000, 2001), Chinese parenting beliefs were characterized by a belief in the importance of "training", which involves a high degree of parental guidance and monitoring of behaviors, firm directives, and high demands to help children develop into well-functioning members of society. Chao studied immigrant Chinese parents in the U.S., and she found that they endorse child-rearing beliefs associated with *guan* ("training") to a greater extent than did European-American mothers (Chao, 1994, 2000; Jose, Huntsinger, Huntsinger, & Liaw, 2000). More specifically, *guan* includes beliefs like mothers should do everything for their children's education and make many sacrifices, mothers must train children to work very hard and be disciplined, children can improve in almost anything if they work hard, and so on, which are consistent with Chinese cultural values (e.g., the importance of education, interdependence, filial piety). This system of beliefs implies for the Chinese a very involved care and concern for the child, and involves an enormous devotion and sacrifice on the part of the mother.

Chinese Cultural Values

Collectivism / interdependence. Confucianism and Taoism are the core of the Chinese culture and value system that guides behavioral and social interaction. Generally, these two doctrines advocate the rejection of individuality and self-assertion and the maintenance of a balance among natural, human, and spiritual entities (Munro, 1985; Ryan, 1985). Therefore, one of the fundamental imperatives of Chinese culture is to maintain connectedness and interdependence among individuals (De Vos, 1985; Hsu, 1985). A meta-analytic study showed that Chinese culture is more collectivistic than individualistic (Oyserman, Coon, & Kemmelmeier, 2002). Chinese tradition and culture believes that persons are only parts that when separated from the larger society will be incomplete and cannot be fully understood (Phillips, 1976; Shweder, 1984). A basic belief underlying Chinese collectivism is that individuals from the same in-group are interrelated and their well-being depends upon their collective effort, therefore, if each member of the group follows the norms of the group and behaves in the interest of the group, the group will be harmonious and prosperous (Leung, 2010). Chinese individuals make little distinction between themselves and others (Hsu, 1971), just as Zhuangzi (Master Zhuang, Chinese philosopher, 330-286 BC) wrote, “When you look at yourself as part of the natural scheme of things, you are equal to the most minute insignificant creature in the world, but your existence is great because you are in unity with the whole universe” (cited in Dien, 1983, p.282). In Chinese culture, there is an emphasis on synthesizing the elemental parts of any situation into a harmonious whole (Moore, 1967; Northrop, 1946). Even in the most rapidly modernizing parts of the Chinese population (i.e., Taiwan), people are still inclined to act primarily in accordance with the anticipated expectations of others and social norms rather than with internal wishes and personal attributes (Yang, 1981).

Harmony. *He* 和 (harmony) is probably the most cherished ideal in Chinese culture.

Harmony, as understood in Confucianism, can occur both within and between individuals. Between individuals harmony can take place at the level of the family, the community, the nation, and the world, and it may include harmony between societies, harmony within a society with different ethnic groups (or political parties), harmony within the same ethnic group with different kin, and harmony among the same kin (Li, 2006).

In Chinese culture, social harmony is a prominent cultural value that promotes positive interpersonal relationships (Bond & Chi, 1997; Bond & Wang, 1982; Fung, 1983; King & Bond, 1985). Social harmony is rooted in Confucianism and has a profound philosophical grounding (Li, 2006). For example, one of the six key virtues advocated by Confucius is propriety or *li* (礼), which refers to the use of appropriate behaviors and etiquette in all situations. Propriety includes the importance of following the social norms of polite conduct when interacting with others (Woods & Lamond, 2011), more specifically, it is often dictated by clearly delineated rituals, promoting politeness, humility, emotional restraint, and self-control, all of which aids in the avoidance of conflict and maintenance of harmony (Liu, 2012). Another key virtue, *ren* (仁), implies the person's capability to interact with fellow human beings in a sincere, polite, and decent fashion (Hsu, 1985). Therefore, in Chinese culture, concepts like emotional self-control, humility, conformity to norms, and modesty are all related to harmony. For Confucius, a sensible person should be able to respect different opinions and ideas and be able to work with people from various background and experiences in a harmonious way (Li, 2006). Mencius also highly valued harmony. He suggested that among the three important things in human affairs, harmony among people is the most important: "good timing is not as good as being advantageously

situated, and being advantageously situated is not as good as having harmonious people” (天时不如地利，地利不如人和) (Mencius 3B.1, 1980).

Influence of Chinese Cultural Values and Parenting Beliefs on Parenting

Few existing studies have explored the relation between Chinese parents' endorsement of Chinese cultural values and parenting beliefs and their parenting styles directly, and their findings are not consistent. For example, some studies indicated that attitudes toward filial piety are associated with traditional parental attitudes and child training, such as overcontrol, overprotection, and harshness; neglect and inhibition of the expression of ideas, of independence, and of self-mastery; and placement of emphasis on proper behavior (Boey, 1976; Ho, 1994).

There is evidence that Chinese parenting beliefs and practices related to *guan* are positively associated with both authoritative and authoritarian parenting (Chen & Luster, 2002; Pearson & Rao, 2003). Some aspects of *guan* are consistent with some of the characteristics of authoritarianism, such as obedience, directiveness, and a set of rules of conduct. However, some others aspects of *guan* were quite consistent with the authoritative construct known to be beneficial for Western children, for example, high expectations for age-appropriate behaviors and close involvement and supportive supervision (Stewart et al., 1998). Chao (2000) studied immigrant Chinese mothers and found that *guan* (“training”) beliefs have been associated with Chinese American mothers' authoritative and authoritarian parenting styles.

Wu and colleagues (2002) conducted a study with mainland Chinese mothers on their parenting styles, and they found that mothers' adherence to Chinese values was associated with their authoritative and authoritarian parenting styles. Xu et al. (2005) found that Chinese mothers who had high scores for both authoritative and authoritarian parenting styles adhered most

strongly to the Chinese cultural values. More specifically, Chinese mothers' adherence to Chinese values of collectivism, conformity to norms, emotional self-control and humility were associated with an authoritarian parenting style, whereas their adherence to collectivism and conformity to norms were also correlated with the authoritative parenting style.

However, some studies did not show direct associations between mothers' endorsement of Chinese cultural values and their parenting styles. For example, contemporary Chinese mothers in one study reported that their Chinese cultural values (e.g., Confucian ideologies) do not directly influence their parenting practices (Chang et al., 2003). However, evidence suggests that even without explicit endorsements, traditional Chinese cultural values (e.g., filial piety) are still valued by Chinese parents and continue to impact child rearing attitudes (Chao, 2000; Pearson & Rao, 2003; Rao, McHale, & Pearson, 2003; Xu et al., 2005).

THE CURRENT STUDY

Research Questions

In sum, previous studies showed a possible association between Chinese mothers' Chinese cultural values and parenting beliefs and their choices of parenting style and practices, however, these studies either involved Chinese American mothers or mainland Chinese mothers of young children.

The purpose of the current study was to examine how mainland Chinese mothers' endorsement of Chinese cultural values and Chinese parenting beliefs could be used to explain their choice of parenting styles and practices, as perceived by their children (ages 9 to 17). In

addition, this study examined whether mothers' beliefs or practices, or the relations between beliefs and practices, varied by youth age.

Hypotheses

My model makes the following hypotheses about mothers' endorsement of Chinese cultural values and Chinese parenting beliefs and their choice of parenting styles and practices:

(1) Previous studies showed that Chinese mothers who had high scores for both authoritative and authoritarian parenting styles adhered most strongly to the Chinese cultural values (e.g., Xu et al., 2005), so I expected the higher level of mothers' endorsement of Chinese cultural values (i.e., collectivism), the more Chinese youths would perceive both authoritative and authoritarian parenting styles.

(2) Studies on Chinese American mothers suggested that Chinese child-rearing beliefs related to "training" have been associated with both mothers' authoritative and authoritarian parenting styles (Chao, 2000), so I expected positive relationship between mothers' "training" beliefs and authoritative and authoritarian parenting styles.

(3) Compared with mothers from individualistic settings, mothers from collectivistic societies applied more psychological control (Rudy & Halgunseth, 2005). In traditional Chinese culture, people advocated the rejection of individuality and self-assertion and the maintenance of harmony and interdependence (Munro, 1985; Ryan, 1985). These socialization goals could be possibly cultivated through parental psychological control practices including invalidating feelings, constraining verbal expressions, withdrawing love, and inducing guilt. Therefore, I expected a positive relationship between mothers' endorsement of collectivism and Chinese youths' perceptions of mothers' use of psychological control over them.

(4) Chinese culture values the importance of children serving and obeying parents (Ho, 1994; Huang, Ying, & Arganza, 2003) and maintenance of connection among individuals (De Vos, 1985; Hsu, 1985). These cultural values could be cultivated through parental behavioral control (i.e., parental rule-setting and monitoring of children's actions and whereabouts), therefore, I expected a positive relationship between mothers' endorsement of collectivism and Chinese youths' perceptions of mothers' use of behavioral control over them.

(5) Studies showed that "training" represented an essential part of parenting beliefs that was assumed to be unique to Chinese culture (Chao, 1994; Lieber et al., 2006). I expected that Chinese mothers who attached more value in "training" beliefs would apply more psychological and behavioral control over their children to cultivate appropriate socialization goals (e.g., interdependence, harmony).

(6) Scholars suggested that parenting styles and practices may vary according to children's developmental stages (Kim et al., 2013). For instance, in a child's early years, a mother may focus on providing nurturance and prompt attention to the child's every need (Wu, 1985; Young, 1972), but when the child reaches school age, the mother may focus more on providing support to help the child achieve in school and meet the societal and familial expectations for ultimate success. Therefore, I expected negative associations between youths' age and mothers' use of psychological control, behavioral control, and authoritative and authoritarian parenting styles.

METHOD

Participants

Participants for the study were recruited from one city, Xi'an. Xi'an is a relatively large city in Northwest China, and it keeps many traditional Chinese cultural elements. Participants were recruited through several cooperating institutions, more specifically, youth participants and their mothers were recruited from one elementary school and three middle schools. In total 652 youths (ages 9-17, $M = 12.07$, $SD = 2.15$, female 46.2% and male 52.9%, 0.9% did not identify their gender; 95.2% Han nationality, 3.1% minority, 1.7% did not identify their nationalities), and their mothers (ages 30-54, $M = 39.14$, $SD = 3.77$, 0.3% received no education, 6.3% had elementary education, 48.5% had middle & high school education, 40.8% had college education, and 3.5% had post graduate education) were recruited. (See Appendix A for detailed demographic information of youth participants). In Xi'an, students who go to the same school tend to have comparatively similar academic performance and socioeconomic background. Students from all three middle schools have average to below-average academic performance, and students from the one elementary school have average academic performance.

Procedure

The data were collected as a part of a larger study that examined the relations among mothers' cultural and parenting values, parenting practices, and children academic, social, emotional, and behavioral outcomes. (See Appendix B for a list of all the measures used in the larger study). Informational meetings were held with teachers of prospective participants in order to explain the rationale for the study. Teachers distributed parent consent forms to students and asked them to bring the forms home for parents to review and sign. The students returned their parents' signed consent forms to their teachers the next day. Teachers read the assent form to the students whose parents had given consent, and distributed questionnaires to those who agreed to participate. Teachers also distributed the parent questionnaires to students and asked them to

bring the questionnaires home for their mothers to complete. The investigator collected both the consent forms and completed questionnaires from the teachers. Students participated on a voluntary basis and were assured that the responses would be kept confidential and used for research purposes only. It was emphasized that the participants would not write their names or any form of identification on the questionnaires. The order of all measures was counterbalanced to eliminate carryover effect of any specific measure.

Translation and validation of measures. The equivalence of instruments in different cultural and linguistic contexts is critical for the validity of cross-cultural comparative research (Punnett & Shenkar, 1996; van de Vijver & Leung, 1997). All of measures were translated into Chinese using back-translation method (Werner & Campbell, 1970) and bilingual checking (Punnett & Shenkar, 1996). First, all measures were translated into Chinese by a Mandarin-speaking translator; this Chinese version was then translated back into English by another Mandarin-speaking translator; both translators along with the researcher then compared this back-translated English version with the original version to resolve any discrepancies in the two versions; on resolving these discrepancies, changes were then made to the Chinese version.

A pilot study was conducted to test participants' understanding of content and wording of the translated Chinese measures. Forty students (20 junior high school students and 20 elementary school students) and twenty mothers were recruited for the pilot study. No evidence was found in the pilot study that Chinese students had difficulty understanding the items in the measure, and only a couple of minor adjustments of the translation were made according to participants' feedback.

Measures—Measures Answered by Mothers

Asian Values Scale: Chinese mothers' endorsement of Chinese cultural values was measured using the Asian Values Scale (AVS; Kim, Atkinson, & Yang, 1999). The AVS is based on Confucian beliefs about socialization goals and societal virtues. The AVS has six subscales which are rated on a 7-point scale (1=strongly disagree, 7=strongly agree): conformity to norms (8 items, e.g., following familial and social expectations is important); family recognition through achievement (3 items, e. g., occupational failure does not bring shame to the family); emotional self-control (3 items; e.g., parental love should be implicitly understood and not openly expressed); collectivism (3 items; e.g., one should think about one's group before oneself); humility (3 items; e. g., modesty is an important quality for a person); and filial piety (4 items; e. g., children should not place their parents in retirement homes). The individual subscales scores were computed by averaging the item scores, the higher the scores the more mothers' orientation to Chinese cultural values. Previous studies showed that the internal consistency of the AVS subscales ranged from .76 to .88 with a Chinese sample (Xu et al., 2005), and AVS has 2-week test-retest reliability (Kim et al., 1999). Also, factor analysis and comparisons of AVS scores to scores on the Individualism–Collectivism scale and the Suinn-Lew Asian Self-Identity Acculturation Scale provided evidence of convergent and divergent validity for the AVS (Kim et al., 1999). (See Appendix C for full measure).

Collectivist Socialization Goals. Chinese mothers' endorsement of Chinese cultural values was also measured by a five-item Collectivism Socialization Goals measure (Li, Costanzo, & Putallaz, 2010). These items reflected parental socialization goals that emphasize social harmony (e.g., I want my child to have harmonious relationships with people around him/her), cooperation (e.g., when in a group, I want my child to be cooperative with people), and collectivism (e.g., I want my child to know the role he/she should play in a social group).

Participants rated how important each goal was using a 5-point Likert-type scale ranging from 1 (not at all important) to 5 (very important). The individual scores were computed by averaging the item scores, the higher the scores the higher the collectivism socialization goals the mothers had. In previous research, the internal consistencies of the measure were satisfactory for Chinese samples ($\alpha = .77$) (Li et al., 2010). (See Appendix D for full measure). For the current sample, the Cronbach's alpha is .83.

“Training”. Chinese mothers' parenting beliefs were measured by a “Training” questionnaire (Chao, 1994). This measure consists thirteen items derived from the culturally specific concepts of *jiao xun* (training) and *guan*. Two areas were covered by the training questionnaire: “ideologies on child development and learning” (7 items, e.g., parents must begin training child as soon as he/she is ready) and “ideologies on the mother-child relationship” (6 items, e.g., mothers should do everything for child's education and make many sacrifices). Participants rated how they agreed with each statement using a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The score was computed by averaging the item scores, the higher the scores the more mothers endorsed training parenting. A shorter version of this scale (6 items) has been validated among immigrant Chinese and Chinese samples in Mainland China (Chao, 2000; Li et al., 2010). (See Appendix E for full measure). For the current sample, Cronbach's alpha is .75.

Measures—Measures Answered by Youths

Parenting Style: Chinese mothers' perceived parenting beliefs and behaviors were assessed by using a modified version of Block's Child-rearing Practices Report (CRPR; Rickel & Biasatti, 1982). There are 40 items in this measure that tap different types of parenting practices such as punishment, encouragement of independence, and expression of affection.

The authoritative parenting subscale consists of 18 items describing parent-child communication, rational guidance, and expression of affection (e.g., “my mother encourages me to talk about my troubles”; “my mother encourage me to wonder and think about life”; “my mother express her affection by hugging, kissing, and holding me”).

The authoritarian parenting style subscale consists of 22 items describing punishment, power-assertive strategies, discouragement of the child’s emotional expression and of verbal give-and-take between parent and child, (e.g., “my mother believes that scolding and criticism make a child improve”; “my mother does not allow me to question her decisions”; “my mother believes that a child should be seen and not heard”). However, two items from authoritarian subscale were dropped since they contained content about mothers’ attitudes toward sexual information (i.e., “my mother does not think children should be given sexual information”; “my mother dreads answering my questions about sex”), which might not be appropriate for the younger participants in the current sample.

Participants were asked to indicate if the statement described their mothers accurately on a scale ranging from 1 to 7 (1= most undescriptive; 7= most descriptive). The individual subscale scores were computed by averaging the item scores, the higher the scores the more authoritative and/or authoritarian their mothers’ perceived parenting styles were, respectively. Items indicating authoritative and authoritarian parenting styles were separate; thus, mothers could score high or low on both subscales. CRPR has been used with Chinese samples and the internal consistency for the authoritative and the authoritarian scales were satisfactory (Lin & Fu, 1990; Xu et al., 2005). (See Appendix F for full measure). For the current sample, Cronbach’s alphas for authoritative and authoritarian parenting subscale are .88 and .70, respectively.

Psychological Control: Mothers' perceived psychological control over the children was assessed by Barber's (1996) 8-item Psychological Control Scale-Youth Self-Report (PCS-YSR). Items reflected various aspects of psychological control such as love withdrawal (e.g., my mother is a person who will avoid looking at me when I have disappointed her), constraining verbal expression (e.g., my mother is a person who often interrupts me), and personal attacks on the child (e.g., my mother is a person who blames me for other family members' problems). Participants rated if the statement is like their mothers ranging from 1 (not like her) to 3 (a lot like her). The individual scores were computed by averaging the item scores, the higher the scores the more psychological control mothers had over the children. The internal consistency of the measure was around .80 in a Chinese-Canadian sample (Rudy, Awong, & Lambert, 2008). (See Appendix G for full measure). For the current sample, Cronbach's alpha is .79.

Behavioral Control: Chinese mothers' perceived behavioral control was measured with a five-item monitoring scale often used in family research with adolescents (e.g., Brown, Mounts, Lamborn, & Steinberg, 1993). Participants rated on a three-point Likert-type scale from 1, "Doesn't know", to 3, "Knows a lot," relative to how much their mothers "really know": (1) "Where you go at night," (2) "Where you are most afternoons after school," (3) "How you spend your money," (4) "What you do with your free time," and (5) "Who your friends are." The individual scores were computed by averaging the item scores, higher scores indicated higher levels of behavioral control. This measure appears to be a particular reliable and powerful index of family management and regulation. In previous research, Cronbach's alpha was .81 for the full sample and correlations between behavioral control and psychological control were consistently negative, ranging from -.17 (mother-son dyad) to -.26 (mother-daughter dyad;

Patterson & Stouthamer-Loeber, 1984). (See Appendix H for full measure). For the current sample, Cronbach's alpha is .68.

DATA PREPARATION

Originally, 652 Chinese youths and their mothers answered the questionnaires, 640 mother-youth dyads were included in the analyses. The missing data were accounted for using maximum likelihood estimation with robust standard errors and a scaled test statistic (MLR) method. This estimation method does not impute missing values, but directly estimates model parameters and standard errors using all available raw data. It works by estimating a likelihood function for each individual based on the variables that are present, so that all the available data are used. Collinearity was detected by calculating a squared multiple correlation between each variable and all the rest (Kline, 2011), and the results suggested no extreme multivariate collinearity.

RESULTS

Analytic Strategy

Structural equation modeling (SEM; Kaplan, 2004; Millsap, 2002) was implemented using R (version 3.2.3) to test the theoretical model on the overall sample. Analyses to be described here proceeded in several steps. First, several confirmatory factor analyses were performed to evaluate the measurement model to verify the associations between the latent constructs and their observed indicators (Anderson & Gerbing, 1988). The MLR estimation procedure was used. Second, I evaluated the fit of the initial theoretical model from Figure 1. Third, I compared the initial theoretical model against a modified model in order to explore the associations between youths' age and mothers' use of parenting styles and practices.

A variety of indices were used to assess model fit. To assess the overall goodness of fit, I used the chi-square test statistic. I also included the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the root mean square error of approximation (RMSEA), and the Standardized Root Mean Square Residual (SRMR), which are among the most widely reported approximate fit indexes in the SEM literature. Hu and Bentler (1999) suggested the following cutoffs for good fitting models: CFI > .95, TLI > .95, RMSEA < .06, and SRMR < .08. However, recent studies have suggested that there are no “golden rules” for cutoff values for SEM fit indexes (Marsh, Hau, & Wen, 2004) and that multiple criteria should be used, so I take the combination of CFI, TLI, RMSEA, and SRMR values obtained here as indicating an acceptable fit.

Measurement Models and Correlations Among Variables

Before testing the structural model, I first established the viability of the latent factors through the use of confirmatory factor analysis (CFA) measurement models. Measurement models were achieved by examining the loadings of the measured variables onto the latent factors. Thus, at this step, I focused on how well the latent factors are specified and not on prediction of other variables.

Several separate measurement models were tested on each measure used in the analyses: (1) Asian values; (2) collectivism socialization goals; (3) “training” beliefs; (4) parenting style—authoritative; (5) parenting style—authoritarian; (6) psychological control; (7) behavioral control. The variable loadings on latent factors and the fit indices for each model are summarized in Table 1.

Conducting CFAs on six subscales of Asian Values Scale (AVS) did not reveal any acceptable model fit, which suggested that the original suggested construct did not fit the current data. Exploratory factor analyses (EFA) was then conducted to further test the links between the

24 AVS items. 5-factor and 6-factor solutions were implied. Inspecting the content of factors revealed that none of the solutions comprised reasonable item clustering. Therefore, since the low reliability (subscale α s = .08 to .53) and validity of the measure, I opted to drop this measure in the following analyses.

The measurement model for collectivism socialization goals included all 5 items from the original measure. CFA revealed good model fit. More specifically, factor structure did not produce a significant chi-square statistic, χ^2 (df = 3) = 6.96, p = .07, so we failed to reject the null hypothesis that the model fits perfectly in the population. Other global fit indices suggested a good fit as well, CFI = 1.00, TLI = .99, RMSEA = .05 (RMSEA 90 percent confidence interval of .00 to .09), and SRMR = .01.

The measurement model for “training” beliefs included 9 items from the original “training” scale. Conducting CFAs on two subscales of “training” did not reveal any acceptable model fit, which suggested that the original suggested construct did not fit the current data. EFA was then conducted to further test the links between the 13 items. 1-factor solution was implied. Inspecting the content of factors revealed that the 1-factor solution comprised reasonable item clustering. This factor structure produced a significant chi-square statistic, χ^2 (df = 24) = 80.74, p < .001, so we rejected the null hypothesis that the model fits perfectly in the population, but other global fit indices suggested an acceptable fit, CFI = .94, TLI = .91, RMSEA = .06 (RMSEA 90 percent confidence interval of .05 to .08), and SRMR = .04. Thus, the one factor model was used in further analysis.

The measurement model for authoritative parenting style included 16 items from the original 18 item authoritative parenting subscale (see Appendix F for included items). CFA revealed an acceptable model fit, factor structure produced a significant chi-square statistic, χ^2

($df = 102$) = 249.97, $p < .001$, so we rejected the null hypothesis that the model fits perfectly in the population, but other global fit indices suggested an acceptable model fit, CFI = .94, TLI = .93, RMSEA = .05 (RMSEA 90 percent confidence interval of .05 to .06), and SRMR = .04.

The measurement model for authoritarian parenting style included 10 items from the original 20 item authoritarian parenting subscale (see Appendix F for included items). CFA revealed an acceptable model fit, factor structure produced a significant chi-square statistic, χ^2 ($df = 35$) = 78.23, $p < .001$, so we rejected the null hypothesis that the model fits perfectly in the population, but other global fit indices suggested an acceptable model fit, CFI = .93, TLI = .91, RMSEA = .05 (RMSEA 90 percent confidence interval of .03 to .06), and SRMR = .04.

The measurement model for psychological control included all 8 items from the original scale. CFA revealed an acceptable model fit. More specifically, factor structure produced a significant chi-square statistic, χ^2 ($df = 18$) = 34.39, $p = .01$, so we rejected the null hypothesis that the model fits perfectly in the population, but other global fit indices suggested a good model fit, CFI = .99, TLI = .98, RMSEA = .04 (RMSEA 90 percent confidence interval of .02 to .06), and SRMR = .03.

The measurement model for behavioral control included all 5 items from the original measure. CFA revealed a good model fit. More specifically, factor structure did not produce a significant chi-square statistic, χ^2 ($df = 3$) = 2.77, $p = .43$, so we failed to reject the null hypothesis that the model fits perfectly in the population. Other global fit indices also suggested a good fit, CFI = 1.00, TLI = 1.00, RMSEA = .00 (RMSEA 90 percent confidence interval of .00 to .07), and SRMR = .01.

The correlations among the theoretical factors are shown in Table 2. The pattern of correlations was generally consistent with theoretical expectations with one exception. For

example, collectivism was positively related to authoritarian parenting style ($r = .21, p < .01$), authoritative parenting style ($r = .24, p < .01$), and behavioral control ($r = .16, p < .01$).

“Training” beliefs yielded a few nonsignificant/low correlations with authoritarian ($r = .05, ns$) and authoritative ($r = .05, ns$) parenting styles, and psychological control ($r = .03, ns$), but they were in the direction that I expected. The only exception to expectations was that “training” beliefs were inversely related to mothers’ use of behavioral control ($r = -.10, p < .05$). In sum, despite the few nonsignificant correlations and one exception, the general pattern of correlations followed my theoretical expectations and showed potential for testing the full model.

Full Structural Model

In line with my hypotheses, I formulated direct paths between collectivism and each of the parenting styles and practices (i.e., authoritative parenting style, authoritarian parenting style, psychological control, and behavioral control), and direct paths between “training” beliefs and each of the parenting styles and practices. Since studies showed that “training” represented an essential part of parenting beliefs that was assumed to be unique to Chinese culture (Chao, 1994; Lieber et al., 2006), I assumed some association between collectivism and “training” beliefs. Further, in order to account for potential additional relations among the parenting styles and practices, I allowed correlations between the disturbance terms for authoritative parenting style, authoritarian parenting style, psychological control, and behavioral control. These correlations were added so as not to risk biasing the estimates of the other structural pathways. Because these variables were endogenous (i.e., dependent), it was necessary to allow their disturbance terms to correlate rather than correlate the variables directly. In SEM, only direct correlations between exogenous (i.e., independent) variables can be estimated (see Bollen, 1989). This initial

theoretical model (Figure 1) consisted the structural pathways linking the variables (observed variable was denoted by rectangles; latent variables by ovals).

For the sample, the model differed significantly from the data, χ^2 (df = 1335) = 2158.70, $p < .001$, yet fit acceptably according to the CFI = .90, TLI = .90, RMSEA = .03 (90% CI for RMSEA = .029, .033), and SRMR = .05. Figure 2 presents both the standardized and unstandardized coefficients for pathways between latent variables and reveals that the direct associations between “training” beliefs and authoritative parenting style, authoritarian parenting style, and psychological control were nonsignificant. However, “training” beliefs were significantly associated with less use of behavioral control. As expected, collectivism had positive associations with youths’ perceived authoritative and authoritarian parenting style and mothers’ use of behavioral control. Contrary to our expectations, however, collectivism was negatively associated with mothers’ use of psychological control.

Modified Model

In order to explore if youths’ age would have an impact on mothers’ choice of parenting styles and practices, based on the initial theoretical model, I added four direct paths from youths’ age to the four outcome latent variables. I expected that youth age would be negatively related to mothers’ psychological control, behavioral control, authoritarian parenting, and authoritative parenting. The modified model differed significantly from the data, χ^2 (df = 1326) = 1998.15, $p < .001$, yet fit acceptably according to the CFI = .92, TLI = .92, RMSEA = .03, 90% CI for RMSEA = .026, .031, and SRMR = .05). After comparing the modified model with the initial theoretical model, according to Akaike (AIC) and Bayesian (BIC), the modified model fitted better than the initial theoretical model (AIC = 96302.71 & BIC = 97212.85, AIC = 96140.49 & BIC = 97090.78 for initial theoretical model and modified model, respectively).

Additionally, I compared the amount of variability explained in the endogenous factors in initial theoretical model and the modified model (R^2 s). I observed that the amount of variability of the psychological control latent factor did not change very much between the two models ($\Delta R^2 = .002$). However, there were marked increases in the amount of variability of the authoritative parenting style, authoritarian parenting style, and behavioral control latent factors explained in the modified model compared with the initial theoretical model (ΔR^2 ranging from .05 to .07). Specifically, whereas 7.8% of the variance of behavioral control is accounted for by initial theoretical model, in the modified model with youths' age added as a predictor of behavioral control, 15.1% of the variance of behavioral control is now explained. This finding of differential predictions of behavioral control lends added support to the importance of including youths' age as a separate factor in the structural model. So I concluded that the modified model was the final structural model. Table 3 included the details of the final structural model. The results of the final structural model were presented in Figure 3.

In inspecting the coefficients of the final structural model, the coefficients were consistent with the results of the initial theoretical model. More specifically, I expected to find positive associations between collectivism and each of the parenting styles and practices (i.e., authoritative parenting style, authoritarian parenting style, psychological control, and behavioral control), the results mostly confirmed the hypotheses that collectivism was positively associated with authoritative parenting style, authoritarian parenting style, and behavioral control (β s ranging from .16 to .27). However, contrary to my expectation, collectivism was negatively associated with psychological control ($\beta = -.11$).

Additionally, I expected to find positive associations between "training" beliefs and each of the parenting styles and practices, the results revealed that "training" beliefs were negatively

associated with mothers' use of behavioral control ($\beta = -.17$), but was not significantly associated with mothers' parenting styles and psychological control, therefore my hypotheses were not confirmed.

I hypothesized that there would be negative associations between youths' age and mothers' use of psychological control, behavioral control, and authoritative and authoritarian parenting styles. Generally speaking, as expected, youths' age was significantly negatively associated with mothers' use of authoritative and authoritarian parenting style and behavioral control (β s ranging from $-.22$ to $-.29$), however youths' age was not significantly associated with mothers' use of psychological control.

Moderation Effect

In order to explore whether the associations between collectivism and "training" beliefs and perceived parenting style and practices varied based on youths' age, I conducted multiple regression in SPSS. Regression analyses included age group (coded as ages 9-12 (elementary) = 0, ages 13-17 (middle) = 1), collectivism, and "training" beliefs in the first block, the interaction of age group and collectivism (mean-centered) in the second block, and the interaction of age group and "training" beliefs (mean-centered) in the third block.

Results of several multiple regressions revealed one significant interaction effect. Specifically, results from the second block of the regression indicated that adding the interaction term significantly improved the proportion of variance accounted for by the model (F change = 5.94 , $p = .015$). Results indicated significant age group X collectivism interaction in perceived authoritarian parenting style ($R^2_{\text{adjusted}} = .087$, $\Delta R^2 = .009$, $\beta = .101$). After adding the interaction terms, the main effects of collectivism and age group on authoritarian parenting style remained significant.

To further examine the observed interaction effects, separate regression analyses were conducted for the two age groups. These analyses indicated that collectivism was significantly related to authoritarian parenting style for middle school group ($\beta = .32, p < .001$), but unrelated to authoritarian parenting style for elementary school group ($\beta = .04, p = .51$; see Figure 4).

DISCUSSION

Previous studies showed a possible association between Chinese mothers' adherence to Chinese cultural values and parenting beliefs and their choices of parenting style and practice, however, these studies either involved Chinese American mothers or mainland Chinese mothers of young children. The current findings add to a limited body of work addressing how mainland Chinese mothers' endorsement of cultural values and parenting beliefs influence their choice of parenting styles and practices.

In this paper, I sought empirical support for a theoretically derived model of Chinese mothers' endorsement of Chinese cultural values and parenting beliefs' associations with Chinese youths' perceived authoritarian and authoritative parenting styles and behavioral and psychological control, and simultaneously tested youths' age as a predictor of mothers' parenting styles and parenting practices. In order to establish the robustness of my initial theoretical model, I rigorously established the fit of its measurement and structural models. Ultimately, the modified model with youths' age as a predictor was retained.

The results of the final structural model revealed that mothers' endorsement of collectivism was significantly associated with all their choices of parenting styles and parenting practices, and mothers' "training" beliefs were only significantly associated with their use of behavioral control over the youth. Additionally, there were significant associations between

youths' age and their perceived authoritarian and authoritative parenting styles and behavioral control, but not psychological control.

Chinese Cultural Values and Parenting Styles

Previous studies showed that child-rearing practices reflect prevailing cultural values, socialization goals, and beliefs (Bornstein, 1991; Chao, 2000; Harwood, 1992). The current study concurred with this observation. Chinese mothers' endorsement of collectivism was significantly positively associated with Chinese youths' perception of mothers using authoritative and authoritarian parenting styles.

Studies with immigrant Chinese mothers and mainland Chinese mothers with young children found that mothers' adherence to Chinese cultural values was associated with their authoritative and authoritarian parenting styles (Chao, 2000; Wu et al., 2002; Xu et al., 2005). More specifically, Xu et al. (2005) conducted a study on mainland Chinese mothers and they found that Chinese mothers' adherence to Chinese values of collectivism and conformity to norms were associated with both authoritarian parenting style and authoritative parenting style. The current study suggested that the higher the level of Chinese mothers' endorsement of collectivism, the more their children would experience both authoritative and authoritarian parenting styles, which was consistent with previous findings.

Chao (2000) suggested the possibility that mothers who strongly endorse Chinese cultural values may adopt both authoritative and authoritarian parenting styles. These mothers may be controlling and restrictive, but they will be highly responsive to their children's needs as well, which results in more positive parent-child interactions than would be the case for predominantly authoritarian mothers, who tend to be insensitive and coercive in their parenting practice and more negative when interacting with their children. A recent study with mainland

Chinese mothers revealed that though mothers do enforce rules to some extent, they are very attentive to their children's needs and prioritize those needs (Chen-Bouck et al., 2016). It is possible that the mothers who strongly endorse Chinese cultural values may have to adjust their traditional methods and strategies and adopt characteristics from both authoritative and authoritarian parenting styles to better raise their children to be "self-sufficient with gainful employment" (Way et al., 2013) in a new economic, cultural, and social context; for instance, one of the basic beliefs underlying Chinese collectivism is that individuals from the same in-group are interrelated and their well-being depends upon their collective effort (Leung, 2010), and when a group is in a very competitive context, just following leads and agreeing on whatever a leader suggests in order to achieve group success may not be enough anymore, parents need to adopt strategies that help their children to be able to express and elaborate their ideas without losing control of their emotions or offending anyone in the group.

It should be noted that after the CFAs, the measure of authoritarian and authoritative parenting styles used in the current study included only a subset of the original items (i.e., 16 out of 18 items for authoritative style and 10 out of 20 items for authoritarian style), therefore the underlying constructs of the two subscales could be different than the original measure. Keeping this in mind, the current research suggested that we should be cautious when applying Baumrind's parenting styles in Chinese contexts. Parenting styles and the meaning behind a specific style should not be interpreted separately from the context. Contemporary Chinese parenting styles may include characteristics of both authoritarian and authoritative parenting styles, instead of being solely characterized as authoritarian parenting style as in previous studies. Chinese parents are most likely adjusting their parenting styles to the changing society. In order to help their children adapt to the new environment better, they may implement same

cultural values (e.g., collectivism) differently than what parents did one or two decades ago. It is worth exploring in a future study exactly how parents implement and cultivate Chinese cultural values through their specific parenting practices.

Chinese Cultural Values and Parenting Practices

Behavioral control. Ogbu (1981) argued that parental practices have been influenced by the cultural environment in which the family resides. The results of the current study showed that the higher the level of mothers' endorsement of collectivism, the more youth reported perception of mothers' behavioral control over them. This observation was consistent with previous studies that parents tend to exert greater behavioral control in cultures that emphasize interdependence than in cultures that emphasize independence (Chao, 1994; Dornbusch et al., 1987; Harwood et al., 1995; Park et al., 2010; Sinha, 1981). Studies suggested that parents with different cultural backgrounds choose their parenting practices based on what they believe will promote their children's competencies so that their children can survive successfully in their societies (Benetti, 1999). Therefore, it is possible that Chinese mothers who attached more value to Chinese cultural values (e.g., interdependence, collectivism) would want to have more involvement in their children's lives and have comparatively more control over their behavior in order to cultivate and promote these cultural values.

Furthermore, contextual development models propose that parents endorsing culturally prescribed values adjust their parenting practices in order to promote culturally desirable behavior in their children (Chen & French, 2008; Super & Harkness, 2002). Previous studies suggested that in collectivist societies, parenting practice tends to place greater emphasis on conformity and obedience than does parenting practice in more individualistic societies (Chao, 1994; Rudy & Grusec, 2006; Triandis, 1988, 1995). Chinese cultures value the importance of

children serving and obeying parents (Ho, 1994; Huang et al., 2003) and maintenance of connection among individuals (De Vos, 1985; Hsu, 1985), therefore, it is understandable that Chinese mothers, who strongly endorse collectivism, would be likely to use strategies like behavioral control to monitor behaviors and control children's activities in order to help them develop social and behavioral skills (e.g., connectedness, interdependence) that are beneficial for thriving in a Chinese context. It should be noted here that later analysis suggested when youth were older, mothers' use of behavioral control did decrease.

Psychological control. Since parenting practice in collectivist societies tends to place greater emphasis on conformity and obedience than does parenting practice in more individualistic societies (Chao, 1994, 1995; Chiu, 1987; Ho, 1989, 1996; Kriger & Kroes, 1972; Rudy & Grusec, 2006; Triandis, 1988, 1995), I expected to observe a positive association between mothers' endorsement of collectivism and their use of psychological control. However, contrary to my expectation, the association between mothers' endorsement of collectivism and their use of psychological control over their children was significantly negative. That is to say, the higher level of mothers' endorsement of collectivism, the less Chinese youth would perceive mothers using psychological control over them.

There are several possible explanations for the observed negative relation between collectivism and psychological control. First, Grusec, Rudy, and Martini (1997) suggested that in collectivist cultures, individuals must learn to inhibit the expression of their own needs and feelings and to attend to the needs of others in the in-group. However, inhibiting the expression of personal needs and feeling does not necessarily mean not having individual needs, feelings, and opinions completely. It is possible that in order to cultivate appropriate social skills and behaviors, Chinese mothers' parenting practices emphasize more on respecting others' opinions

when people disagree and empathizing, rather than eliminating individual opinions and feelings. It will be interesting to explore in future research what specific strategies and practices Chinese mothers usually use to help children develop appropriate social and behavioral skills.

Second, in order to better prepare their children for the contemporary society, Chinese mothers may reexamine some traditional values and consider adopting Western parenting practices (e.g., independence, expression of personal opinions and feelings) (Chen & Chen, 2010; Lieber et al., 2006). Actually, current studies on Chinese parenting practices revealed that Chinese mothers intentionally encourage their children to have individual opinions and make decisions on their own (Chen-Bouck et al., 2016), and to be independent and have autonomy (Fong, 2007; Lieber et al., 2006). Since psychological control is the opposite of autonomy-support, it is understandable that contemporary Chinese mothers opt for not using psychological control to encourage children's personal identity.

Third, psychological control refers to parental attempts to control the children's activities in ways that manipulate children's psychological worlds and undermine the children's psychological development (Schaefer 1959, 1965; Smetana & Daddis, 2002). However, recent studies on Chinese parenting showed that contemporary mothers see raising children who are emotionally well-adjusted as one of their primary goals (Chen-Bouck et al., 2016; Way et al., 2013), and they have adjusted their parenting practices to promote psychological well-being (Chen & Chen, 2010; Chen-Bouck et al., 2016). It is possible that in a new economic, cultural, and social environment, instead of using psychological control to undermine children's psychological development, Chinese mothers who strongly endorse Chinese cultural values may adopt practices that strengthen children's psychological health.

Chinese Parenting Beliefs and Parenting Styles and Practices

The structural equation analyses yielded nonsignificant associations between mothers' parenting beliefs (i.e., training) and youths' perceived authoritative parenting style, authoritarian parenting style, and psychological control, however, contrary to my expectation, mothers' training beliefs were negatively associated with mothers' use of behavioral control. In a study about identifying key dimensions of Chinese child-rearing beliefs, Lieber and associates found that among the four key dimensions—training, shame, autonomy, and authoritativeness—the training dimension was positively related to autonomy dimension (Lieber et al., 2006). If training is positively associated with autonomy, it is reasonable to observe a negative association between mothers' "training" beliefs and their use of behavioral control, since using behavioral control usually aims at inducing compliance with parental directives (Schaefer, 1959, 1965).

Studies suggested that traditional Chinese parentings beliefs generally include ideas like children should be obedient and behave in ways that will not disgrace the family name (Shek & Chan, 1999), and parents should be highly demanding and provide guidance and monitor children's behaviors to a large extent (Chao, 1994, 2000, 2001), therefore using behavioral control as a parenting practice should be in line with these beliefs. However, the measure used in the current study to examine parenting beliefs mainly imply the ideas that mothers should give priority to their children's development and make many sacrifices, their sole responsibility should be raising the children into well-functioning members of society. These beliefs are consistent with Chinese cultural values (e.g., interdependence), but are comparatively less consistent with mothers' knowledge of children's activities, which was the measure of behavioral control in the current study. It is possible that the more mothers endorse these beliefs, the more they may focus on promoting children's overall development, including self-esteem, academic performance, and appropriate social skills, by applying other strategies (e.g., modeling,

inductive discipline, reinforcement), rather than focusing on fulfilling their responsibility by knowing their children's whereabouts. Unfortunately, the current study did not provide data to test this assumption, future research should explore further what exact strategies or practices Chinese mothers use to raise the children into well-functioning members of the contemporary society.

In addition, the way behavioral control was measured may not reflect some other aspects of behavioral control that Chinese mothers might exert. For example, Chinese parents are directive in teaching and scheduling their children's time (Berk, 2012), they may control which training school their children go after school, they may control whom their children make friends with by scheduling the time intentionally so children may not be able to attend friends' parties or hang out with a particular friend. It is possible that the measure did not include the aspects Chinese youth usually experienced as behavioral control. Furthermore, the behavioral control scale used in current study only measured parental knowledge of children's whereabouts (e.g., where you go at night) and activities (e.g., how to spend money), but Chinese youth might not perceive mothers having the knowledge as mothers exerting behavioral control over them. Future study should include more than one measure of behavioral control or develop extra items that are especially appropriate for Chinese setting to have a more comprehensive evaluation of Chinese mothers' behavioral control over Chinese youth.

Youth Age and Parenting Styles and Practices

Scholars suggested that parenting styles and practices may vary according to children's developmental stages (Kim et al., 2013). Given the wide range of youths' ages, I explored whether Chinese mothers' parenting styles and practices may vary based on youths' age. I added youth age as a predictor in the structural model, and analyses revealed that, mostly consistent

with my expectation, there were negative associations between youths' age and youths' perception of mothers' authoritative parenting style, authoritarian parenting style, and behavioral control, however the association between youths' age and mothers' psychological control was not significant. That is to say, the older the youth, the less they perceived their mothers' use of authoritative and authoritarian parenting styles and behavioral control.

Consistent with Chao's (1994) idea that parenting needs to have different focus for children at different stages of their lives, the current study found that Chinese mothers use less behavioral control when youths are older. It is possible that when children are young and incapable of taking care of themselves, mothers may focus on providing nurturance and monitoring their behavior, but when children reaches school age or older, mothers may focus more on providing guidance and support to help their children achieve academically and develop appropriate social and interpersonal skills. Qin and colleagues' (2009) found that parental control decreases as children moved into adolescence. In a recent qualitative study, some Chinese mothers elaborated on why they chose to use less control over their children when they moved into adolescence: 1) they felt that they had no other option since children spend more and more time at school, it was impossible for them to control children's behavior outside of the home forever; 2) they believe that when children grew up, they need to think for themselves and make decisions on their own, so they chose to control less to encourage self-reliance and autonomy in their children (Chen-Bouck et al., 2016).

The observation of decreased usage of authoritarian and authoritative parenting styles could also be partially explained by the way mothers' responsiveness was measured in the current study. Some items seem age sensitive/relevant, for instance, "my mother jokes and plays with me", "my mother expresses her affection by hugging, kissing, and holding me", and "my

mother and I have warm intimate moments together”. It is possible that when children are getting older, the way mothers express their affection and warmth may change accordingly (e.g., expressing their warmth in a more subtle or implicit fashion by being supportive and sensitive to their children’s needs), but these items did not reflect it. Actually, both Chinese mothers and adolescents reported that after entering adolescence, mothers used physical actions to express their affection less frequently, since adolescents would feel “awkward” or “weird” having physical contact with their mothers (Chen-Bouck, et al., 2016). So, it is understandable that when children are older, they would rate lower on those items than when they were younger. Mothers may apply other age-appropriate strategies that were not captured by the items used in the study. For example, Chinese adolescents reported that their mothers sacrificed a large amount of time helping them with homework and exam preparation, making their favorite foods, and prioritizing their needs and wants (Chen-Bouck et al., 2016). Future research might benefit from revisions to the measurement of parenting styles to include more age-appropriate and culture-sensitive items for Chinese adolescents. The findings of the current study suggested that mothers’ parenting does vary according to children’s age, it will be interesting to explore in a future study exactly how mothers’ parenting practices vary at different ages.

Exploring the interaction effect of youth age in the associations between Chinese mothers’ endorsement of collectivism and parenting beliefs and their parenting styles and practices revealed that the relations were mostly the same across the age range sampled. The only significant association was between mothers’ endorsement of collectivism and youths’ perceived authoritarian parenting style. This relationship was stronger for the middle school age youth than for the elementary school age youth. It is possible that when youth were younger, mothers would consider authoritarian parenting style as widely acceptable since at this stage

mothers might focus more on having control over the children and getting compliance. When their children became middle schoolers, only the mothers with stronger collectivist beliefs would still view the same level of authoritarianism as acceptable for the children since at this stage mothers might focus more on the development of autonomy and appropriate social skills.

Chinese cultural values emphasize interdependence that human beings are primarily members of groups (Triandis, 1989), and in Chinese contexts, self-disciplined, hardworking, and obedient are often the focuses in socialization goals (Chao, 2000). Since authoritarian parenting style places emphasis on strictness and conformity to parental expectations and rules, compared to other parenting styles, it may be more conducive to these socialization goals (Park et al., 2010). It is possible that when children are getting older, Chinese mothers that strongly endorse Chinese cultural values will adopt authoritarian parenting practices to achieve those socialization goals.

LIMITATIONS

Although the current study makes a contribution to the existing literature on the factors that may influence Chinese mothers' choice of parenting styles and practices, I am aware of certain limitations. First, the endorsement of Chinese cultural values was originally also measured by Asian Values Scale (AVS), but the validity and reliability of AVS were unacceptably low. A measurement model was tested on AVS, conducting CFAs on six subscales of AVS did not reveal any acceptable model fit, which suggested that the original suggested construct did not fit the current data. EFA was then conducted to further test the links between the 24 items, 5-factor solution and 6-factor solution were implied. However, after closely reviewing item clustering in every solution, none of them revealed a reasonable item clustering. In addition, the results showed that all reversed items from different subscales loaded on the

same factor, which may imply that using reversed wording items in Chinese may cause problems for participants to understand and interpret the item. Due to this poor reliability and unreasonable item clustering, I opted to drop this measure in the analyses, which left me only one measure to examine mothers' endorsement of Chinese cultural values. The associations between mothers' endorsement of some other important Chinese cultural values (e.g., filial piety, conformity to norms, emotional self-control) and mothers' parenting styles and practices were not explored in the current study, further study with a valid and reliable measure is needed for a more comprehensive understanding of how mothers' endorsement of Chinese cultural values may affect their choice of parenting. Additionally, given that all measures were self-report, and mothers' parenting styles and parenting practices were only reported by youth, there may be possible common rater biases. Multiple informants (e.g., mothers, children, and fathers) reporting on mothers' parenting styles and practices could provide a more thorough evaluation.

Second, since the sample is not large enough to randomly split and cross-validate the analyses, this is clearly a limitation of the current study. A replication is necessary to verify and confirm findings presented here. Additionally, since all participants were recruited from urban areas and most of them were from middle-class families, the results of the study might not be representative of mainland Chinese mothers as a whole, and the findings should not be generalized to Chinese mothers from other socioeconomic status backgrounds or from non-urban areas.

Third, in order to account for potential additional relations among the parenting styles and practices, I added nondirected arcs between four endogenous variables (i.e., authoritative parenting style, authoritarian parenting style, behavioral control, and psychological control). Although adding nondirected arcs does not change the causal model (McDonald & Ho, 2002),

unfortunately the current model did not explore the possibility of measuring the potential additional relations among the parenting styles and practices. Further work is needed to explore the possibility of measuring it and understanding the mechanism behind it.

Fourth, the study used a data set collected at one point in time. As a result, strong claims about causal nature of the relationships cannot be made. A longitudinal study is needed to establish a causal nature of mothers' endorsement of Chinese cultural values and their choice of parenting practices. In addition, more qualitative data is needed to further explain some of the structural relations, their existence or absence.

CONCLUSION AND IMPLICATIONS

The findings of the current study suggested that both mothers' endorsement of Chinese cultural values and youth age may have an impact on parenting styles and practices. Previous studies implied that mothers from collectivistic cultural background tend to apply more authoritarian parenting practices, compared with mothers from individualistic cultural background (Rudy & Grusec, 2006; Rudy & Halgunseth, 2005; Triandis, 1988, 1995), however the current study suggested that under the new economic, cultural, and social context, Chinese mothers who strongly endorsed Chinese cultural values (i.e., collectivism) may have to adjust their traditional parenting strategies and adopt both authoritarian and authoritative parenting practices. Additionally, Chinese mothers may adjust their parenting practices taking children's age into consideration. For example, comparing to mothers of younger children, mothers of older children are less likely to use behavioral control. This observation confirmed previous arguments that parents have different areas of focus when parenting children at different stage of their lives (Chao, 1994; Kim et al., 2013). The findings of the current study remind us that parenting is not only a social and cultural phenomenon, but also a constantly changing/adjusting phenomenon. In

order to explore mechanism behind mothers' choices of parenting strategies and practices, it is important to put them in a relevant social and cultural context for examination while taking children's specific characteristics (e.g., age, gender, temperament) into consideration.

One interesting finding of the study was that a negative association between mothers' collectivist values and their use of psychological control was observed. It seems worth differentiating between being connected and harmonious and completely having no personal opinions and perspectives, especially under the contemporary social, economic, and cultural context. It should be interesting to explore in further research how Chinese mothers reach traditional socialization goals (e.g., obedience, harmony, interdependence, and collectivism) without having their children give up personal opinions and feelings completely, or maybe if contemporary Chinese mothers have different socialization goals that match current social and economic context, which would require them to use other parenting practices rather than psychological control. It is also worth exploring in future study with a qualitative approach what specific strategies and practices are that Chinese mothers usually use to help children develop appropriate social and behavioral skills and the mechanism behind those choices.

In addition, due to the obstacles I encountered during validating Asian Values Scale, researchers who want to conduct research in a non-Western settings should be more cautious using measures developed in Western settings, since due to language and cultural differences, researchers should not assume a well-established measure in a Western setting will also be valid and reliable in a non-Western setting. Small scale pilot testing of the validity and reliability of a measure should be encouraged before using the measure for a large scale data collection.

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Table 1
Summary of Factor Analysis Measurement Models (Standard Errors in Parentheses)

	Unstandardized coefficient	Standardized coefficient
Measurement Model 1: Collectivism socialization goals		
<i>Items loadings on latent factor</i>		
I want my child to have harmonious relationships with people around him/her.	1.00 ^a	.71
When in a group, I want my child to be cooperative with people.	1.02****(.07)	.64
When my child succeeds, I want him/her to think about the help he/she received from others.	1.04****(.07)	.68
I want my child to be modest and learn from others.	1.07****(.07)	.77
I want my child to know the role he/she should play in a social group.	1.13****(.09)	.64
<i>Model fit: χ^2 (df = 3) = 6.96, p = .07, CFI = 1.00, TLI = .99, RMSEA = .05, SRMR = .01</i>		
Measurement Model 2: “Training” beliefs		
<i>Items loadings on latent factor</i>		
Mothers primarily express love by helping child succeed, especially in school.	.52****(.04)	.52
Parents must begin training child as soon as he/she is ready.	.25****(.04)	.30
A mother’s sole interest is in taking care of her child.	.67****(.05)	.64
Children can improve in almost anything if they work hard.	.34****(.04)	.39
Child should be in the constant care of their mothers or family.	.64****(.04)	.62
Mothers must train children to work very hard and be disciplined.	.40****(.04)	.50
Mothers should do everything for child’s education and make many sacrifices.	.70****(.04)	.69
Mothers teach child by pointing out good behavior in others.	.41****(.04)	.44
The best way child learns how to behave is by being around adults.	.37****(.04)	.43
<i>Model fit: χ^2 (df = 24) = 80.74, p < .001, CFI = .94, TLI = .91, RMSEA = .06, SRMR = .04</i>		
Measurement Model 3: Parenting style—authoritative		
<i>Items loadings on latent factor</i>		
My mother and I have warm intimate moments together.	1.00 ^a	.62

My mother encourages me to talk about my troubles.	1.20****(.08)	.67
My mother jokes and plays with me.	1.15****(.10)	.59
My mother makes sure I know that they appreciate what I try to accomplish.	1.16****(.10)	.64
My mother encourages me to wonder and think about life.	.94****(.09)	.51
My mother expresses her affection by hugging, kissing, and holding me.	1.23****(.12)	.54
My mother talks it over and reasons with me when I misbehave.	1.10****(.09)	.62
My mother finds it interesting and educational to be with me for long periods.	1.12****(.10)	.59
My mother encourages me be curious, to explore, and question things.	1.02****(.09)	.57
My mother finds some of her greatest satisfactions in me.	.82****(.09)	.46
My mother respects my opinion and encourages me to express it.	1.27****(.10)	.69
My mother feels that a child should be given comfort and understanding when he is scared or upset.	1.07****(.09)	.64
My mother is easy going and relaxed with me.	.75****(.10)	.36
My mother trusts me to behave as I should, even when she is not with me.	1.08****(.10)	.59
My mother believes in praising a child when he is good and thinks it gets better results than punishing him when he is bad.	.85****(.09)	.47
My mother usually takes into account my preference when making plans for the family.	1.06****(.09)	.61
<i>Model fit: χ^2 (df = 102) = 249.97, $p < .001$, CFI = .94, TLI = .93, RMSEA = .05, SRMR = .04</i>		
Measurement Model 4: Parenting style—authoritarian		
<i>Items loadings on latent factor</i>		
My mother believes I should be aware of how much they sacrifice for me.	1.00 ^a	.55
My mother expects me to be grateful and appreciate all advantages I have.	1.11****(.12)	.64
My mother teaches me to keep control of my feelings at all times.	.94****(.11)	.51
My mother does not allow me to say bad things about my teacher.	.61****(.11)	.28
My mother lets me know how ashamed and disappointed she is when I misbehave.	.67****(.11)	.33
My mother wants me to make a good impression on others.	.68****(.08)	.49
My mother thinks a child should be encouraged to do things better than others.	.77****(.10)	.42

My mother doesn't want me to be looked upon as different from others.	.88****(.11)	.48
My mother doesn't think that children of different sexes should be allowed to see each other naked.	.70****(.11)	.34
My mother believes in toilet training a child as soon as possible.	.83****(.11)	.44
<i>Model fit: χ^2 (df = 35) = 78.23, $p < .001$, CFI = .93, TLI = .91, RMSEA = .05, SRMR = .04</i>		
Measurement Model 5: Psychological control		
<i>Items loadings on latent factor</i>		
is always trying to change how I feel or think about things	1.00 ^a	.39
changes the subject whenever I have something to say	.86****(.14)	.37
often interrupts me	1.58****(.20)	.63
blames me for other family members' problems	1.67****(.20)	.63
brings up past mistakes when she criticizes me	1.91****(.24)	.61
is less friendly with me if I do not see things her way	2.08****(.25)	.73
will avoid looking at me when I have disappointed her	1.54****(.20)	.56
if I have hurt her feelings, stops talking to me until I please her again	1.45****(.20)	.48
<i>Model fit: χ^2 (df = 18) = 34.39, $p = .01$, CFI = .99, TLI = .98, RMSEA = .04, SRMR = .03</i>		
Measurement Model 6: Behavioral control		
<i>Items loadings on latent factor</i>		
Where you go at night	1.00 ^a	.46
Where you are most afternoons after school	1.06****(.12)	.49
How you spend your money	1.59****(.22)	.62
What you do with your free time	1.83****(.26)	.64
Who your friends are	.69****(.15)	.30
<i>Model fit: χ^2 (df = 3) = 2.77, $p = .43$, CFI = 1.00, TLI = 1.00, RMSEA = .00, SRMR = .01</i>		

Note: ^a According to requirements for SEM analyses, one variable loading on each latent factor was set equal to 1.00 to set the metric for that factor. As a result, significance values are not calculated for these variable loadings.
 *** $p < .0001$.

Table 2

Means, Standard Deviations, and Correlations of Variables in Theoretical Model

Variables	M(SD) elementary	M(SD) middle	M(SD) total	1	2	3	4	5	6
1 Youth age	10.54(.80)	14.56(.98)	12.09(2.15)						
2 Authoritarian	5.38(.92)	4.92(.94)	5.21(.95)	-.23**					
3 Authoritative	5.22(1.08)	4.66(1.09)	5.00(1.12)	-.26**	.71**				
4 Psychological Control	1.62(.45)	1.62(.46)	1.62 (.45)	.03	-.07	-.32**			
5 Behavioral Control	2.52(.40)	2.26(.40)	2.42 (.42)	-.28**	.28**	.35**	-.16**		
6 Collectivism	4.60(.45)	4.40(.65)	4.52 (.54)	-.17**	.21**	.24**	-.07	.16**	
7 “Training” Beliefs	3.26(.53)	3.41(.57)	3.32 (.55)	.13**	.05	.05	.03	-.10*	.10*

Note: *p<.05, **p<.01; correlations of variables were calculated for the total sample

Table 3 Unstandardized, Standardized, and Significance Levels for the Final Structural Model (Standard Errors in Parentheses)

Structural Model	Unstandardized	Standardized	<i>p</i>
Collectivism → Authoritative Parenting Style	.29 (.05)	.27	.00
Training Beliefs → Authoritative Parenting Style	.02 (.05)	.02	.63
Youth Age → Authoritative Parenting Style	-.12 (.02)	-.23	.00
Collectivism → Authoritarian Parenting Style	.29 (.06)	.27	.00
Training Beliefs → Authoritarian Parenting Style	.05 (.06)	.04	.41
Youth Age → Authoritarian Parenting Style	-.11 (.02)	-.22	.00
Collectivism → Psychological Control	-.11 (.05)	-.11	.02
Training Beliefs → Psychological Control	.07 (.05)	.07	.14
Youth Age → Psychological Control	-.00 (.02)	-.00	.95
Collectivism → Behavioral Control	.17 (.05)	.16	.00
Training Beliefs → Behavioral Control	-.13 (.05)	-.12	.00
Youth Age → Behavioral Control	-.15 (.03)	-.29	.00
Residuals Covariance between Authoritative & Authoritarian parenting styles	.86 (.03)	.86	.00
Residuals Covariance between Authoritative style & Psychological Control	-.39 (.05)	-.39	.00
Residuals Covariance between Authoritative style & Behavioral Control	.37 (.06)	.37	.00
Residuals Covariance between Authoritarian style & Psychological Control	-.10 (.06)	-.10	.08
Residuals Covariance between Authoritarian style & Behavioral Control	.35 (.07)	.35	.00
Residuals Covariance between Psychological & Behavioral Control	-.22 (.06)	-.22	.00
Residuals Covariance between Youth Age & Training Beliefs	.36 (.10)	.17	.00
Residuals Covariance between Youth Age & Collectivism	-.38 (.10)	-.18	.00
Residuals Covariance between Training Beliefs & Collectivism	.03 (.05)	.03	.62
Model fit: χ^2 (1326) = 1998.15, $p < .001$, CFI = .92, TLI = .92, RMSEA = .03, and SRMR = .05			

Table 4
Correlations between Factors

	χ^2	<i>df</i>	RMSEA	90% CI	SRMR	CFI	TLI
Training w Collectivism	2138.629	1285	0.032	0.030-0.035	0.047	0.911	0.904
Authoritarian w Authoritative	2582.264	1285	0.040	0.037-0.042	0.104	0.864	0.854
Authoritarian w Psychological Control	2143.969	1285	0.032	0.030-0.035	0.048	0.910	0.904
Authoritarian w Behavioral Control	2191.039	1285	0.033	0.031-0.036	0.056	0.905	0.898
Authoritative w Psychological Control	2213.523	1285	0.034	0.031-0.036	0.066	0.903	0.896
Authoritative w Behavioral Control	2213.786	1285	0.034	0.031-0.036	0.062	0.903	0.896
Psychological Control w Behavioral Control	2155.262	1285	0.033	0.030-0.035	0.049	0.909	0.902
Training w Authoritative	2138.371	1285	0.032	0.030-0.035	0.047	0.911	0.904
Training w Authoritarian	2138.370	1285	0.032	0.030-0.035	0.047	0.911	0.904
Training w Behavioral Control	2146.669	1285	0.032	0.030-0.035	0.048	0.910	0.903
Training w Psychological Control	2139.885	1285	0.032	0.030-0.035	0.047	0.911	0.904
Collectivism w Authoritative	2180.735	1285	0.033	0.031-0.035	0.059	0.906	0.899
Collectivism w Authoritarian	2174.463	1285	0.033	0.030-0.035	0.055	0.907	0.900
Collectivism w Behavioral Control	2153.437	1285	0.032	0.030-0.035	0.049	0.909	0.903
Collectivism w Psychological Control	2142.412	1285	0.032	0.030-0.035	0.047	0.910	0.904

Figure 1. The Initial Theoretical Model.

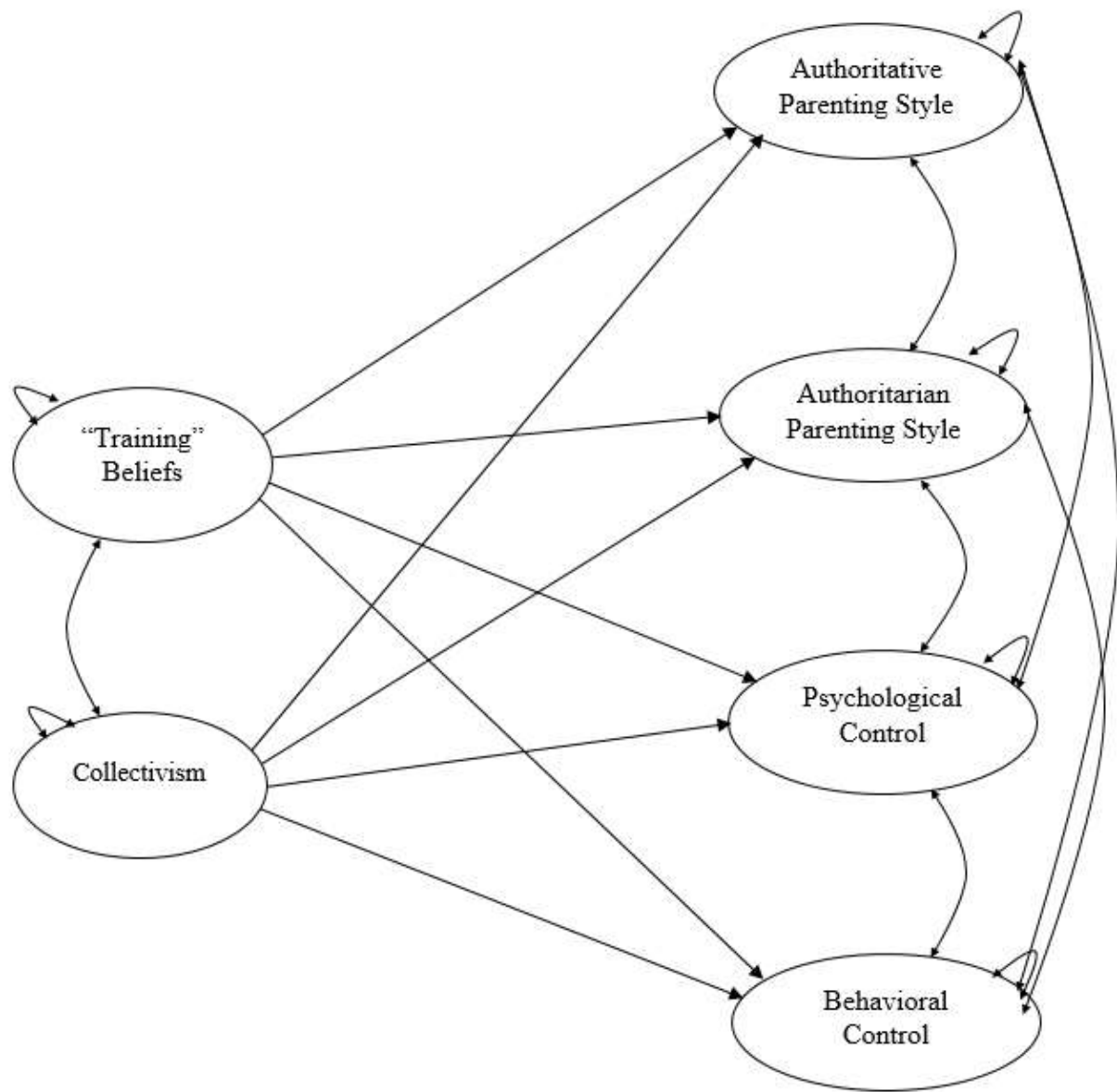


Figure 2. The Observed Model. Standardized and unstandardized coefficients are included. Standardized coefficients are in bold. Standard Errors are in parentheses. Grey represents non-significant path, black represents significant path.

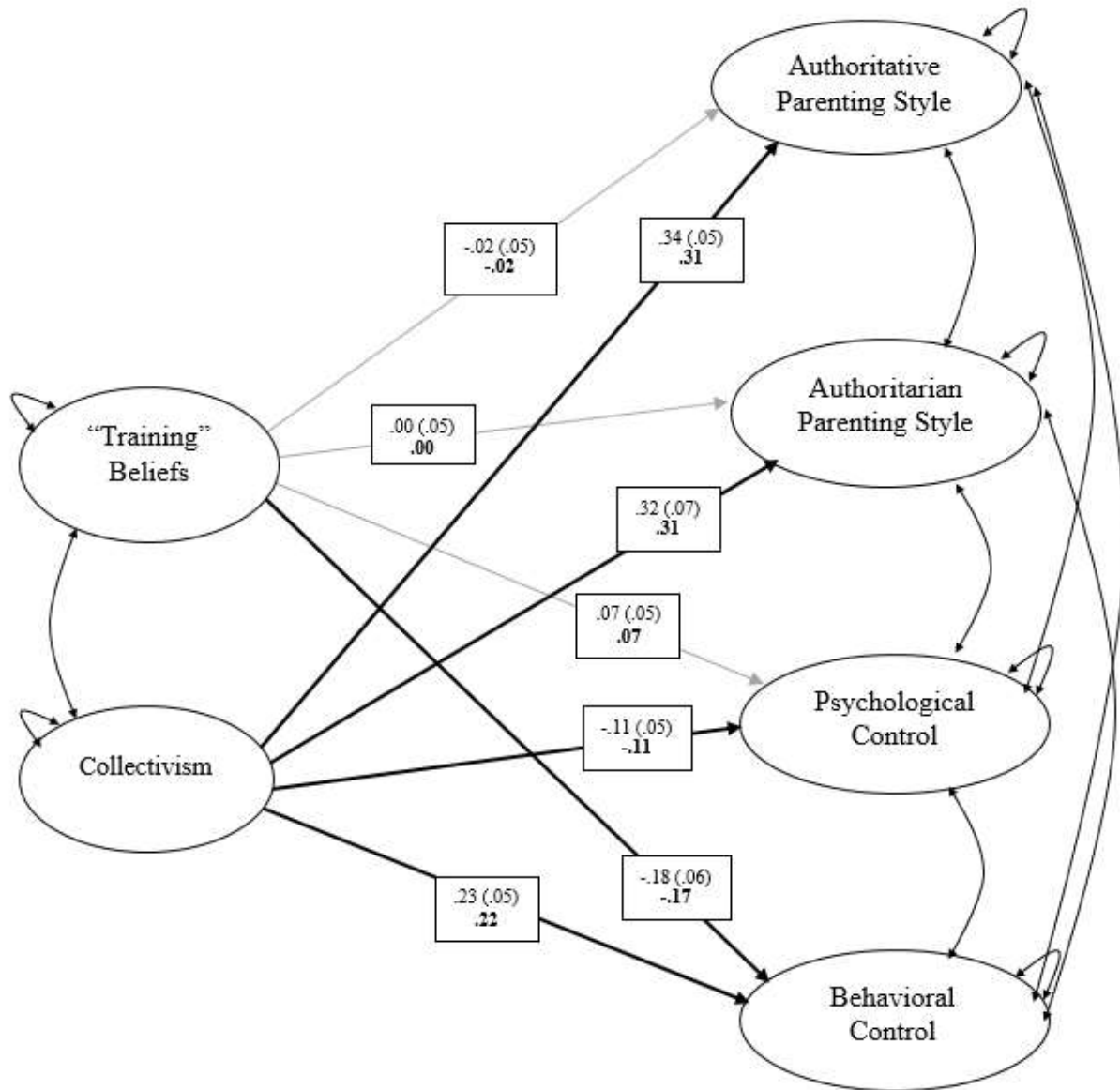


Figure 3. The Final Structural Model. Standardized and unstandardized coefficients are included. Standardized coefficients are in bold. Standard Errors are in parentheses. Grey represents non-significant path, black represents significant path.

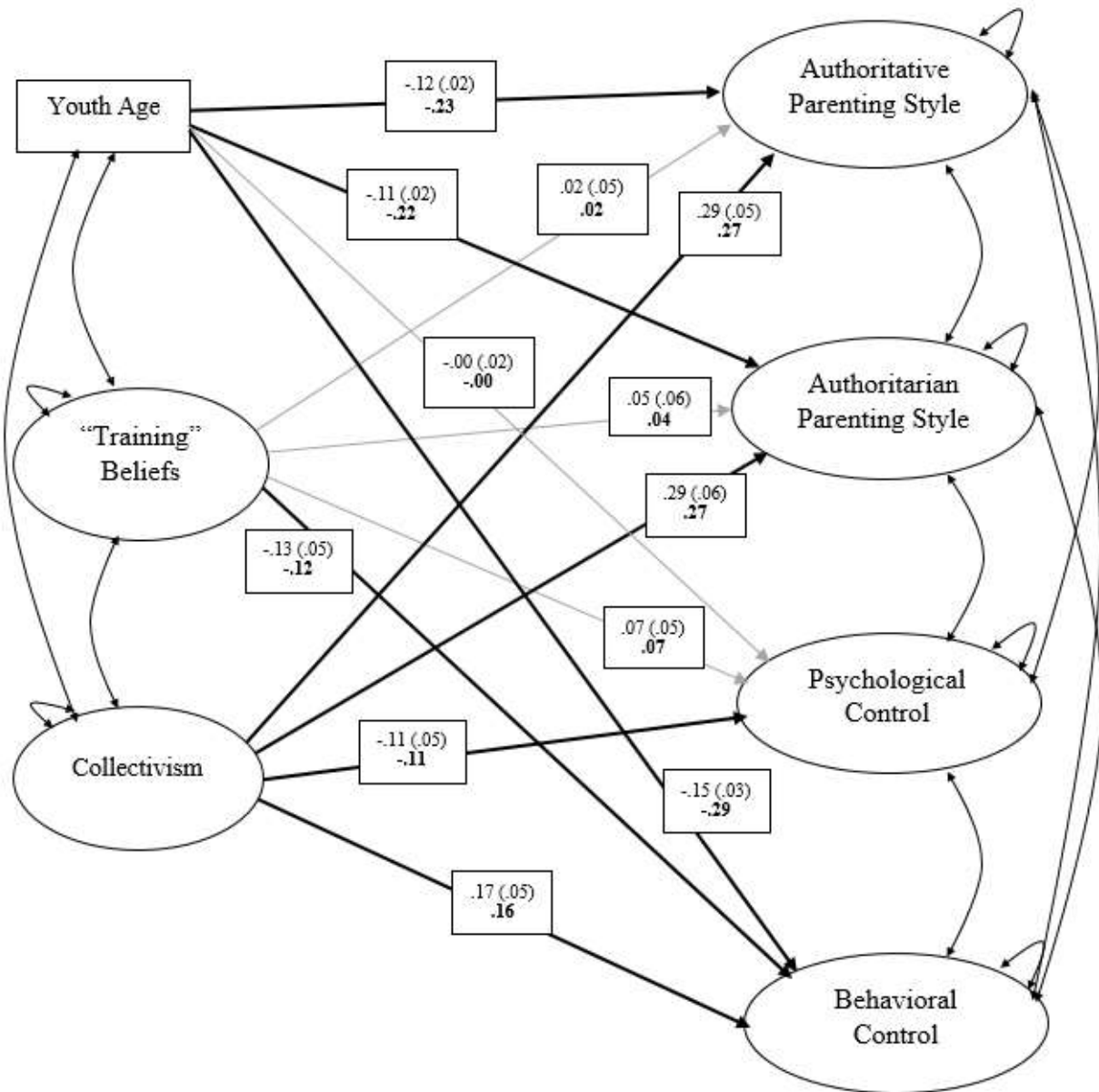
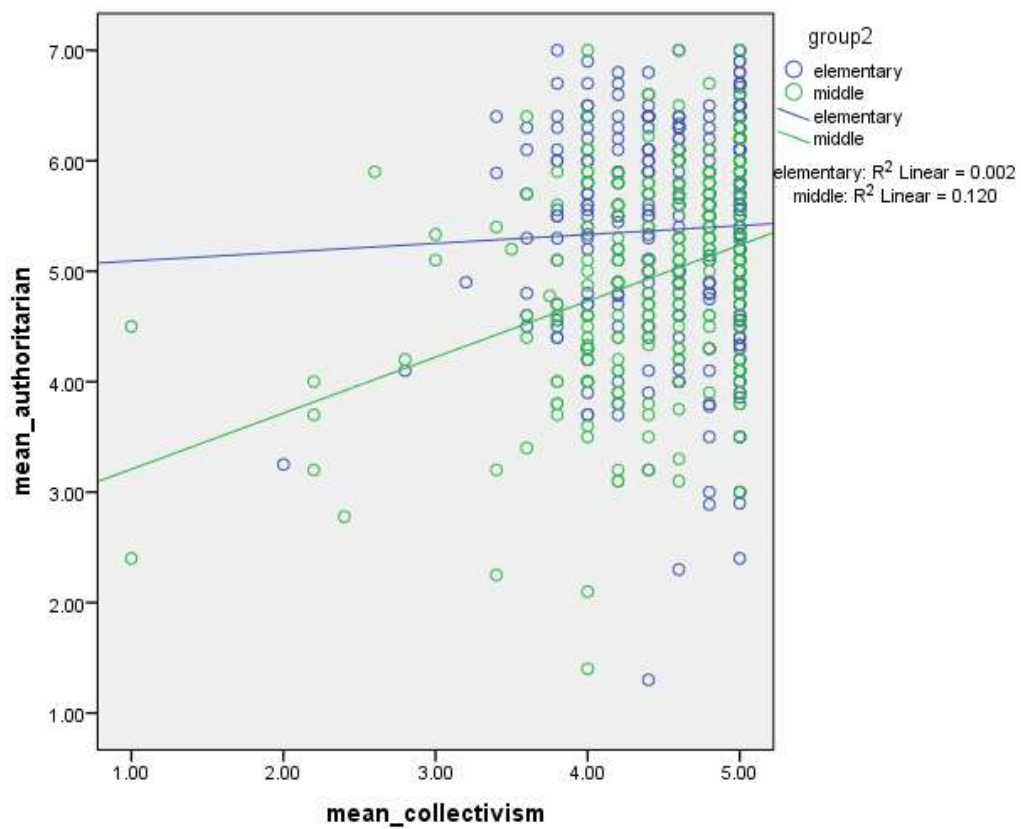


Figure 4. Relations between collectivism and authoritarian parenting style by age group.

Graph



Appendix A Demographics

	Ages	Frequency	Percent
	9	21	3.2
	10	204	31.3
	11	117	17.9
	12	57	8.7
	13	40	6.1
	14	70	10.7
	15	100	15.3
	16	32	4.9
	17	5	8
	Total	646	99.1
	Missing	6	.9
Total		652	100.0
	Gender	Frequency	Percent
	Female	301	46.2
	Male	345	52.9
	Total	646	99.1
	Missing	6	.9
Total		652	100.0

Appendix B Measures

Participants	Measures	Notes
Elementary school students	Parenting Style Questionnaire	Measuring authoritative & authoritarian parenting styles.
	Psychological Control Scale—Youth Self-Report	Measuring mother's psychological control.
	Behavioral Control Questionnaire	Measuring mothers' behavioral control.
	Children's Coping Strategies Checklist	Measuring children's coping strategies when they have problems or feel upset about things.
	State-Trait Anxiety Inventory	Measuring a stable propensity to experience anxiety.
	Self-Constraint Scale	Measuring a variety of feelings and behaviors in various situations, more specifically, measuring independent self-construal and interdependent self-construal.
	Achievement Goal Questionnaire	Measuring performance approach goal, performance avoidance goal, mastery approach goal, and mastery avoidance goal.
	Conflict Behavior Questionnaire: Adolescent Version for Mother	Measuring mother-child relationship quality. For example, how mother and child interact?
	Cognitive Emotion Regulation Questionnaire-Kids	Measuring how children cope with events. For example, when something unpleasant happens, what do they usually think? If they accept it, blame themselves, learn from it, etc.
Middle school students	Participation in Activities & Parental Affection Scales	Measuring mother-child relationship quality. For example, how often does the mother help the child with homework? How often does the child play games with the mother?
	Parenting Style Questionnaire	The same measure as above.
	Psychological Control Scale—Youth Self-Report	The same measure as above.
	Behavioral Control Questionnaire	The same measure as above.
	Children's Coping Strategies Checklist	The same measure as above.
	State-Trait Anxiety Inventory	The same measure as above.
	Self-Constraint Scale	The same measure as above.
	Achievement Goal Questionnaire	The same measure as above.
	Conflict Behavior Questionnaire: Adolescent Version for Mother	The same measure as above.
	Early Adolescent Temperament Questionnaire—Revised	Measuring children's temperament. For example, measuring children's attention, aggression, shyness, inhibitory control, activation control, affiliation.

	Cognitive Emotion Regulation Questionnaire	Adolescent version of Cognitive Emotional Regulation Questionnaire.
	The Child Behavior Checklist—self-report (middle school version)	Measuring children’s internalizing and externalizing behaviors, for example, social withdrawal, aggressive, and delinquent behavior.
Mothers	Asian Values Scale	Measuring mothers’ endorsement of Asian values, for example, conformity to norms, filial piety, etc.
	Parental Collectivism Socialization Goals	Measuring mothers’ endorsement of collectivism socialization goals, for example, if mothers want children to cooperative with people.
	“Training” Questionnaire	Measuring mothers’ ideologies of child development and learning and ideologies of the mother-child relationship.
	Children’s Behavior Questionnaire	Measuring elementary school students’ temperament, for example, children’s attentional focusing, impulsivity, inhibitory control, shyness, anger.
	The Child Behavior Checklist—Parent Report	Measuring elementary school and middle school students’ internalizing and externalizing behaviors, for example, social withdrawal, aggressive, and delinquent behaviors.

Appendix C

Asian Values Scale

INSTRUCTIONS: Please read the following statements, then respond to each of the following statements by circling your answer using the scale from "1 = Strongly disagree" to "7 = Strongly agree" to indicate your agreement and disagreement of these statement.

		strongly disagree ----- strongly agree
1	One should not deviate from familial and social norms.	1-----7
2	Occupational failure does not bring shame to the family.	1-----7
3	One need not follow the role expectations (gender, family hierarchy) of one's family.	1-----7
4	The ability to control one's emotions is a sign of strength.	1-----7
5	Modesty is an important quality for a person.	1-----7
6	Following familial and social expectations is important.	1-----7
7	One should think about one's group before oneself.	1-----7
8	Children need not take care of their parents when the parents become unable to take care of themselves.	1-----7
9	One need not follow one's family's and the society's norms.	1-----7
10	Educational failure does not bring shame to the family.	1-----7
11	One should consider the needs of others before considering one's own needs.	1-----7
12	One's family need not be the main source of trust and dependence.	1-----7
13	One need not conform to one's family's and society's expectations.	1-----7
14	Family's reputation is not the primary social concern.	1-----7
15	One need not achieve academically to make one's parents proud.	1-----7
16	Parental love should be implicitly understood and not openly expressed.	1-----7
17	One's achievements should be viewed as family's achievement.	1-----7
18	One should not be boastful.	1-----7
19	Children should not place their parents in retirement homes.	1-----7
20	The worst thing one can do is bring disgrace to one's family reputation.	1-----7
21	Elders may not have more wisdom than younger person.	1-----7
22	One should be humble and modest.	1-----7
23	When one receives a gift, one should reciprocate with a gift of equal or greater value.	1-----7
24	One should have sufficient inner resources to resolve emotional problems.	1-----7

Appendix D

Collectivism Socialization Goals

INSTRUCTIONS: Please read the following statement, then respond to each of the following statements by circling your answer using the scale from "1 = not at all important" to "5 = very important" to indicate your attitude toward each statement.

		not at all important	somewhat unimportant	sometimes important, sometimes unimportant	somewhat important	very important
1	I want my child to have harmonious relationships with people around him/her.	1	2	3	4	5
2	When in a group, I want my child to be cooperative with people.	1	2	3	4	5
3	When my child succeeds, I want him/her to think about the help he/she received from others.	1	2	3	4	5
4	I want my child to be modest and learn from others.	1	2	3	4	5
5	I want my child to know the role he/she should play in a social group.	1	2	3	4	5

Appendix E

“Training” Questionnaire

INSTRUCTIONS: Please read the following statements, then respond to each of the following statements by circling your answer using the scale from "1 = Strongly disagree" to "5 = Strongly agree." to indicate if you agreement or disagreement of each statement.

		strongly disagree	disagree	sometimes disagree, sometimes agree	agree	strongly agree
1	Children are by nature born good.	1	2	3	4	5
2	Mothers primarily express love by helping child succeed, especially in school.	1	2	3	4	5
3	Parents must begin training child as soon as he/she is ready.	1	2	3	4	5
4	A mother's sole interest is in taking care of her child.	1	2	3	4	5
5	Children can improve in almost anything if they work hard.	1	2	3	4	5
6	Child should be in the constant care of their mothers or family.	1	2	3	4	5
7	Mothers must train children to work very hard and be disciplined.	1	2	3	4	5
8	Mothers should do everything for child's education and make many sacrifices.	1	2	3	4	5
9	Mothers teach child by pointing out good behavior in others.	1	2	3	4	5
10	Child should be allowed to sleep in mother's bed.	1	2	3	4	5
11	The best way child learns how to behave is by being around adults.	1	2	3	4	5
12	Child should be able to be with his/her mother and taken on errands and gatherings.	1	2	3	4	5
13	When a child continues to disobey you, he/she deserves a spanking.	1	2	3	4	5

Notes: items included in the measurement model are in bold.

Appendix F

Parenting Style

INSTRUCTIONS: The following statements are about your mothers' parenting style. Please respond to each of the following statements by circling your answer using the scale from "1 = most undescriptive" to "7 = most descriptive" to indicate if the statement describe your parents accurately.

		most undescriptive -----most descriptive
1	My parents believe I should be aware of how much they sacrifice for me.	1-----7
2	My parents and I have warm intimate moments together.	1-----7
3	My parents expect I to be grateful and appreciate all advantages I have.	1-----7
4	My parents encourage me to talk about my troubles.	1-----7
5	My parents teach me that in one way or another, punishment will find me when I am bad.	1-----7
6	My parents joke and play with me.	1-----7
7	My parents teach me to keep control of my feelings at all times.	1-----7
8	My parents make sure I know that they appreciate what I try to accomplish.	1-----7
9	My parents believe children should not have secrets from their parents.	1-----7
10	My parents encourage me to wonder and think about life.	1-----7
11	My parents control me by warning me about the bad things that can happen to me.	1-----7
12	My parents feel that I should have time to daydream, think, and even loaf sometimes.	1-----7
13	My parents do not allow me to say bad things about my teacher.	1-----7
14	My parents express their affection by hugging, kissing, and holding me.	1-----7
16	My parents talk it over and reason with me when I misbehave.	1-----7
17	My parents believe that scolding and criticism make a child improve.	1-----7
18	My parents find it interesting and educational to be with me for long periods.	1-----7
19	My parents let me know how ashamed and disappointed they are when I misbehave.	1-----7
20	My parents encourage me be curious, to explore, and question things.	1-----7
21	My parents want me to make a good impression on others.	1-----7
22	My parents find some of their greatest satisfactions in me.	1-----7
23	My parents try to keep me away from children or families whose ideas or values are different from our own.	1-----7

24	When my parents are angry with me, they let me know about it.	1-----7
25	My parents think a child should be encouraged to do things better than others.	1-----7
26	My parents respect my opinion and encourage me to express it.	1-----7
27	My parents instruct me not to get dirty when I am playing.	1-----7
28	My parents feel that a child should be given comfort and understanding when he is scared or upset.	1-----7
29	My parents don't want me to be looked upon as different from others.	1-----7
30	My parents are easy going and relaxed with me.	1-----7
31	My parents don't think that children of different sexes should be allowed to see each other naked.	1-----7
32	My parents trust me to behave as I should, even when they are not with me.	1-----7
33	My parents do not allow me to question their decisions.	1-----7
34	My parents believe in praising a child when he is good and think it gets better results than punishing him when he is bad.	1-----7
35	My parents believe that a child should be seen and not heard.	1-----7
36	My parents usually take into account my preference when making plans for the family.	1-----7
37	My parents do not allow me to get angry with them.	1-----7
38	My parents believe in toilet training a child as soon as possible.	1-----7
39	My parents prefer me not try things if there is a chance I might fail.	1-----7

Notes: items included in the measurement model are in bold.

Appendix G

Psychological Control Scale—Youth Self-Report (PCS-YSR)

INSTRUCTION: Please consider the following description of your mother, and choose if the description is accurate or not. 1=not like her; 2= somewhat like her; 3= a lot like her

My mother is a person who...

	not like her	somewhat like her	a lot like her
1. is always trying to change how I feel or think about things	1	2	3
2. changes the subject whenever I have something to say	1	2	3
3. often interrupts me	1	2	3
4. blames me for other family members' problems	1	2	3
5. brings up past mistakes when she criticizes me	1	2	3
6. is less friendly with me if I do not see things her way	1	2	3
7. will avoid looking at me when I have disappointed her	1	2	3
8. if I have hurt her feelings, stops talking to me until I please her again	1	2	3

Appendix H

Behavioral Control Questionnaire

INSTRUCTION: The following statements are designed to understand how much your parents really know what happens in your life. Please read them carefully, then choose the number from 1 (don't know) to 3 (know a lot) to indicate how much your parents know about them in your life.

	If your parents know...	Don't know	Know a little	Know a lot
1	Where you go at night	1	2	3
2	Where you are most afternoons after school	1	2	3
3	How you spend your money	1	2	3
4	What you do with your free time	1	2	3
5	Who your friends are	1	2	3